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CIRCULATION ELEMENT

CITY OF COLTON

CIRCULATION ELEMENT

PREPARED FOR

THE CITY OF COLTON

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PREPARED BY

MGA

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INTRODUCTION TO THE CIRCULATION ELEMENT

Reliance on the private automobile, not only for commuting to work but for shopping, educational and social activities, is a necessity for a vast majority of Southern California residents. The unmatched freedom provided by the automobile and its associated system of freeways and arterial streets provides the expectation that timely and convenient access can be made of the far ranging assets of Southern California.

The analyses conducted as part of the City of Colton General Plan Update Study, together with regional studies being made within the San Bernardino County Area, clearly show that maintaining an adequate Level of Service on the transportation system is under extreme pressure and, therefore, the challenge of maintaining these expectations is very formidable. The fact that the population within the City of Colton General Plan Study Area is expected to grow from approximately 40,000 in 1992 to more than 80,000 by the Year 2010 clearly illustrates the transportation challenge to the City.

PURPOSE OF ELEMENT

The purpose of the Circulation Plan is to provide for a safe, convenient and efficient circulation system for the City. In order to meet this objective, the Circulation Element has been designed to accommodate the anticipated transportation needs based on the estimated intensities of various land uses within the region. This element describes the extent of physical improvements needed to accommodate anticipated population growth and also introduces other techniques (e.g., restricted street parking, transportation systems management plans and congestion management plans) which can be used to improve and maintain an acceptable Level of Service for the City's circulation system.

The element is also intended to serve as a basic plan for other infrastructure systems such as sewer lines. As the State's General Plan Guidelines indicate, the Circulation Element is actually an infrastructure plan which "concerns itself with the circulation of people, goods, energy, water, sewage, storm drainage and communications.

RELATED PLANS AND PROGRAMS

The City of Colton is directly impacted by urban development and growth in the area surrounding the City. The City of San Bernardino, which adjoins the northerly and easterly boundaries of Colton, is a rapidly growing industrial and residential community of over 170,000 people. Significant traffic volumes from San Bernardino and other cities outside the City of Colton will utilize both the north/south and east/west arterials, as well as Interstate 215 and Interstate 10.

The Cities of Loma Linda and Grand Terrace, which border Colton to the east and to the south, respectively, are growing communities as well and also significantly impact the Colton roadway system.

The City of Rialto is a very rapidly growing community of greater than 70,000 people to the west of Colton and is primarily residential in nature. Rialto and unincorporated San Bernardino County territory westerly of Colton impact the Colton roadway system to a significant degree as well.

On the southern boundary of the City of Colton, The City of Riverside, which has a population of over 200,000 people and unincorporated Riverside County territory has a very heavy impact on the City of Colton roadway system, primarily Interstate 215.

In addition to these rapidly growing urban areas immediately adjacent to the City of Colton, the City's two main backbone transportation components, I-10 and I-215, are heavily impacted by traffic originating outside the Colton area and driving through the area.

State Programs

The California Department of Transportation (Caltrans) is currently planing for the construction of high-occupancy vehicle (HOV) lanes on I-215 from the Riverside County line to proposed Route 30 north of the Colton city limits.

The HOV construction will be funded under Measure "I", a county program utilizing federal, state, and local revenue sources. Plans to construct HOV lanes on I-10 from I-15 to Route 30 are conceptual at this point and are not currently funded.

Preliminary plans are being made to improve both the Pepper Avenue at I-10 and Washington Street at I-215 Interchanges to provide more capacity.

County Programs

As the present time, the County's Measure "I" Program, which is administered by San Bernardino Associated Governments (SANBAG), is having a direct positive impact on the City circulation system by funding (on an equal basis with federal, state, and local revenue sources), the construction of HOV lanes on I-215 and potentially the construction of HOV lanes on I-10 within a Year 2010 time frame.

Bus Service

OMNITRANS provides bus service within Colton and throughout San Bernardino County. Although bus route and transit stop planning generally responds to identified transit needs, the City can work with OMNITRANS to include public transportation consideration in land use planning decisions.

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD), the agency responsible for monitoring air quality in the south coast region, has adopted Regulation XV as part of its "Rules and Regulations." Intended to reduce pollutant emissions from vehicles commuting between home and the workplace, Regulation XV also serves to reduce vehicle trips and thereby may be considered a circulation program.

Regulation XV requires employers of 100 or more persons to prepare and implement trip reduction plans. Fines for non-compliance may be levied against employers.

In addition to Regulation XV, vehicle-miles traveled (VMT) reduction measures beginning in 1993 will be imposed on all local agencies within the South Coast Air Quality basin. These VMT reduction measures will mandate all local agencies to implement vehicle work trip reduction monitoring programs by the end of 1993. By the end of 1994, all local agencies must quantify that a 6% work vehicle trip reduction has been accomplished within the respective agency. Non-compliance with the VMT reduction measure will result in the loss of the respective agency's share of gas tax revenue.

Proposition 111

Approval of Proposition 111 by California voters in June 1990 made effective Assembly Bill No. 1791. This law will have a direct impact on the City of Colton in several ways which are enumerated within the bill. In general, the bill requires that in cooperation with the regional transportation agency, which in this case would be SANBAG, a Congestion Management Program (CMP) be developed, adopted and annually updated in order to ensure that the City of Colton does not lose its pro rata share of increased funding resulting from the gas tax increase of Proposition 111.

All member agencies of SANBAG, providing the agency is eligible for Proposition 111 funds, receives Proposition 111 funding to maintain designated facilities which are part of the agency's CMP. The facilities within the City of Colton selected to receive Proposition 111 funding as part of the City's CMP are as follows:

- Reche Canyon Road - south City limits to Washington Street (Barton Road)
- Mt. Vernon Avenue - Washington Street to north City limits
- La Cadena Drive - south City limits to Rancho Avenue
- Rancho Avenue - La Cadena Drive to north City limits
- Pepper Avenue - I-10 Fwy. to Randall Avenue
- Agua Mansa Road - south City limits to La Cadena Drive
- Barton Road - La Cadena Drive to Washington Street (portions)
- Washington Street - Mt. Vernon Avenue to Waterman Avenue
- Colton Avenue - Mt. Vernon Avenue to north City limits
- Mill Street - Rancho Avenue to Bordwell Avenue

Route 30, a proposed freeway which will have three travel lanes and one HOV lane in each direction, is a project funded by Proposition 111 and is expected to have an impact on the Colton circulation system. The proposed Route 30 will parallel I-10 in an east/west direction approximately three miles north of the Colton city limits and is scheduled for completion by Year 2000.

City Programs

At the present time, the City of Colton has an ordinance which requires land developers to pay into a fund for street improvement and traffic signal construction.

SCOPE AND FORMAT OF ELEMENT

This element is composed of four sections. The first section, the Introduction, includes a description of the Element's purpose and related plans and programs. The second section, which follows, contains the City's goals and policy statements for improving circulation in and around Colton. The third section is the Circulation Plan, which identifies standards for existing and future intersections and roadways, indicates where road and intersection upgrades are necessary, and defines the City's service level objectives to be achieved by the circulation system. Also included in the Circulation Plan is a discussion of alternate modes of transportation, the Bicycle Circulation Element and other infrastructure needs. The fourth section of the Circulation Element contains the implementation program which contains specific implementing measures to realize the Element's goals and policies.

The relationship of the Circulation Element to other elements of the General Plan is described in the Introduction to the General Plan.

CIRCULATION ELEMENT GOALS AND POLICIES

The City's primary circulation goal is to provide a circulation system that has adequate capacity to meet the demands of future development. Future development is defined to be that development occurring which is consistent with adopted land use policy.

For purposes of estimating traffic volumes for the Year 2010, land development projects such as tentative tracts, parcel maps, development plans, specific plans, etc. were reviewed and added to the traffic model's existing land use database to yield a Year 2010 land use database. This data in-turn was used to allocate the Year 2010 SCAG RIV-SAN socioeconomic data (SED) to the traffic model analysis zones. The current proposed (approved or not approved) projects within the Colton city limits will result in the addition of development which is listed as follows:

- 1,151 single family dwelling units
- 203 multi-family dwelling units
- 465,000 square feet of commercial/retail
- 120,000 square feet of professional offices
- 177,500 square feet of industrial
- 888,000 square feet of hospital
- 158,000 square feet of storage facilities

SAFE CONVENIENT AND EFFICIENT TRANSPORTATION SYSTEM

The City desires the development of a freeway and arterial system intended to provide for transportation needs generated by future development within the study area, and also to accommodate anticipated growth in the areas surrounding the Colton study area.

GOAL 1: Develop a transportation system that is safe, convenient, efficient and provides adequate capacity to meet local and regional demands.

Policy 1.1: Develop a circulation system of City streets, excluding freeway, that is capable of serving existing traffic and expected future increases in traffic.

Policy 1.2: Follow standards for circulation element roadways in designing and constructing future street improvements.

Policy 1.3: Include transportation system management techniques, such as park-and-ride lots, traffic signal synchronization, carpool/vanpool programs, flexible work hours and the creation of Transportation management Associations as requirements of development by major employers.

Policy 1.4: Take a leadership role in the preparation of a regional traffic mitigation program designed to resolve regional traffic issues.

Policy 1.5: Logically relate local street patterns to the overall network of arterial and collector streets as provided for in the Circulation Network. Driveway entrances onto surrounding arterial, secondary and major streets should be restricted when practical, and through traffic on interior residential streets should be minimized.

Policy 1.6: Establish a signalized arterial street system that will provide an acceptable Level of Service during peak hours under build-out conditions.

Policy 1.7: Develop a program for general mitigation fees for roads and traffic signals.

Policy 1.8: Require major employers to prepare Transportation Management Plans with provisions for carpooling and vanpooling, flexible work hours or other techniques.

ALTERNATE TRANSPORTATION MODES

Alternate modes of transportation, such as public transportation and bicycles are used by those who do not have access to automobiles and by those who choose to leave their cars at home. OMNITRANS provides bus service within Colton and throughout San Bernardino County. Rail transportation will also provide an alternate means of travel in the near future. Bicycle facilities, which will be installed in conjunction with circulation system improvements and separate trails for pedestrians, cyclists and equestrians, can reduce dependency on private automobiles.

GOAL 2: Encourage the use of alternate transportation modes.

Policy 2.1: Continue to cooperate with OMNITRANS for the provision of public bus service in the planning area.

Policy 2.2: Establish bus shelters at OMNITRANS stops to increase public recognition and use of the local and regional transit system.

Policy 2.3: Cooperate with Caltrans and the County of San Bernardino in providing sites and improvements for park-and-ride facilities.

Policy 2.4: Take a leadership role in regional planning efforts to provide community rail service throughout the planning area, while protecting railroad right-of-way.

Policy 2.5: Provide a system of bicycle facilities (paths, lanes and routes) in conjunction with circulation system roadway improvements.

Policy 2.6: Develop a system of pedestrian/equestrian/bicycle trails within the planning area, to meet the community needs.

SEPARATION OF TRAFFIC

Separating heavier non-residential traffic, particularly truck traffic, from residential areas preserves neighborhood character and safety. Higher capacity roadways are intended to accommodate this heavier traffic to reduce or avoid impacts on residential areas.

GOAL 3: Separate vehicular traffic associated with commercial, manufacturing and agricultural uses from residential neighborhoods.

Policy 3.1: Provide a circulation system for commercial and manufacturing areas to avoid traffic overflow into adjacent residential areas.

Policy 3.2: Provide safe and convenient pedestrian access between residential neighborhoods and the parks and open space and schools which serve those neighborhoods.

Policy 3.3: Establish a system of truck routes which reduces truck traffic on residential streets.

Policy 3.4: Design residential street systems to reduce through traffic.

Policy 3.5: Design local streets so as not to create "short-cuts" by linking arterial roads.

PARKING

Adequate and convenient parking is an essential part of an effective circulation system. The provision of suitable off-street parking can increase the overall efficiency of the circulation system by promoting freer and safer movement of traffic along roadways.

GOAL 4: Ensure the provision of adequate off-street parking for all land uses.

Policy 4.1: Require all new development to provide adequate off-street parking based on expected parking needs.

Policy 4.2: Provide adequate loading areas within off-street parking areas for all commercial and manufacturing land uses.

THE CIRCULATION PLAN

The implementation of General Plan land use policy will result in approximately a 100% increase of the current population and a proportionate increase in traffic volumes by Year 2010. A traffic model[1] has been developed that is used by the City to determine what improvements to the circulation system are needed to achieve the service level objectives anticipated below.

The traffic model enables land use and circulation alternatives to be examined in conjunction with one another to determine where future system deficiencies will occur. To develop a circulation plan that will accommodate future growth consistent with land use policy and will preserve service level objectives, many system components such as road widenings and extensions were tested. The analysis resulted in the development of the Circulation Plan.

The Circulation Plan consists of four main components: the Roadway Component, the Public Transportation Component, the Bicycle Component and the Infrastructure Component. Each component consists of the following sections:

Roadway Component

- Functional Roadway Classification System
- Roadway Cross Sections
- Freeways and Expressways
- Primary Arterials
- Secondary Arterials
- Collector Streets
- Local Streets
- Freeway Interchanges
- Freeway Crossings
- Service Levels
- Special Intersection Geometrics
- HOV Facilities
- Truck Routes
- Pedestrian Circulation

Public Transportation Component

- Rail Line/Stations
- Bus Service

Bicycle Component

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1. A description of the traffic model and other relative technical information pertaining to the updating of the Circulation Element is contained in Appendices "A" through "G" in the Technical Appendices section of this document.

- Regional Trails
- City Bicycle Routes

Infrastructure Component

- Water System
- Sewage System
- Storm Drain

ROADWAY COMPONENT

Functional Roadway Classification System

Streets and highways shown on the Circulation Roadway Plan are described and classified according to their primary function. This hierarchical system of roadways consists of five basic classifications as follows:

- Freeways and Expressways
- Primary arterials
- Secondary arterials
- Collector streets
- Local streets

Figure 1 titled "Functional Roadway Classifications and General Planning Guidelines" provides considerable detail concerning the functions for each of these street systems together with an overview of general planning criteria for each of the street categories.

The Circulation Plan is shown on Figures 2a and 2b.

Roadway Cross Sections

The facilities designated as arterials and collectors on Figures 2a and 2b have also been classified in terms of typical cross sections in addition to function. The cross section designations for the arterials and collectors are shown on figures 2c and 2d. The street section designations represent the following typical cross sections:

1) Six-lane roadway with single lane painted median
1a) Six-lane roadway with double lane raised median or painted median
2) Four-lane roadway with single lane raised median or painted median
2a) Four-lane roadway with double lane raised median or painted median
3) Four-lane roadway without median or two-lane roadway with single lane painted median
4) Four-lane roadway without median (industrial section)

The lane specifications and dimensions of the six standard cross sections are shown on Figure 2e. These standard sections should be followed as streets in the City of Colton are constructed or improved.

	Freeway and Expressway	Primary Arterial	Secondary Arterial	Collector	Local
Function	Traffic movement	Primary—longer-distance intercommunity and intrametro area high-capacity traffic movement Secondary—land access	Primary—moderate distance intercommunity, intrametro area traffic movement Secondary—land access	Primary—collect/distribute traffic between local streets and arterial system Secondary—land access Tertiary—interneighborhood traffic movement	Land access
Typical percent of surface street system mileage	NA	5 to 10%	10 to 20%	5 to 10%	60 to 80%
Continuity	Continuous	Continuous	Continuous	Not necessarily continuous; should not extend across arterials	None
Approximate spacing (miles)[1,2]	4	1 to 2	½ to 1	½ or less	As needed
Typical portion of surface street system vehicle-miles carried	NA	40 to 65%	25 to 40%	5 to 10%	10 to 30%
Direct land access	None	Limited—major generators only	Restricted—some movements may be prohibited; number and spacing of driveways controlled	Safety controls; limited regulation	Safety controls only
Minimum roadway intersection spacing	1 mile	¼ mile	⅛ mile	300 feet	300 feet
Speed limit (mph)	45 to 55	35 to 45 in fully developed areas	30 to 35	25 to 35	20 to 30
Parking	Prohibited	Prohibited	Generally prohibited	Limited	Permitted
Comments	Supplements capacity of arterial street system and provides high-speed mobility	Backbone of street system		Through traffic should be discouraged	Through traffic should be discouraged

[1] Spacing determination should also include consideration of travel projections in the area or corridor based on ultimate anticipated development.

[2] Spacing will likely be greater in dense activity centers such as downtowns. Transit availability may also influence facility density and capacity by facility.

NA = Not applicable.

SOURCE: "Planning Urban Arterial & Freeway Systems," Institute of Transportation Engineers, 1988

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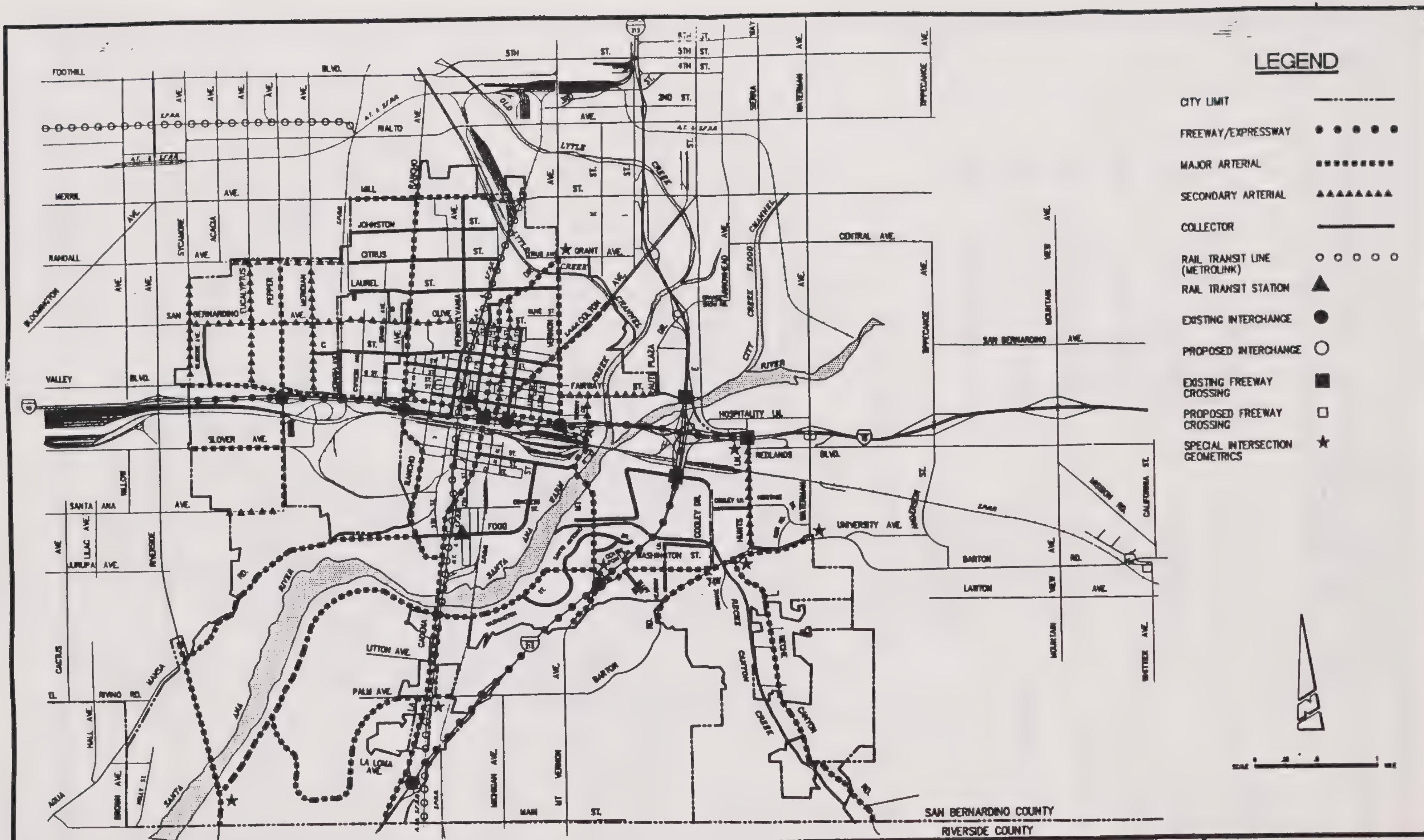
FUNCTIONAL ROADWAY CLASSIFICATIONS AND GENERAL PLANNING GUIDELINES

FIGURE 1



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CITY OF COLTON
GENERAL PLAN CIRCULATION ELEMENT UPDATE
CIRCULATION PLAN

FIGURE 2a

CENTRAL BUSINESS DISTRICT

LEGEND

- CITY LIMIT
- FREEWAY/EXPRESSWAY
- MAJOR ARTERIAL
- SECONDARY ARTERIAL
- COLLECTOR
- RAIL TRANSIT LINE (METROLINK)
- RAIL TRANSIT STATION
- EXISTING INTERCHANGE
- PROPOSED INTERCHANGE
- EXISTING FREEWAY CROSSING
- PROPOSED FREEWAY CROSSING
- SPECIAL INTERSECTION GEOMETRICS

NOT TO SCALE

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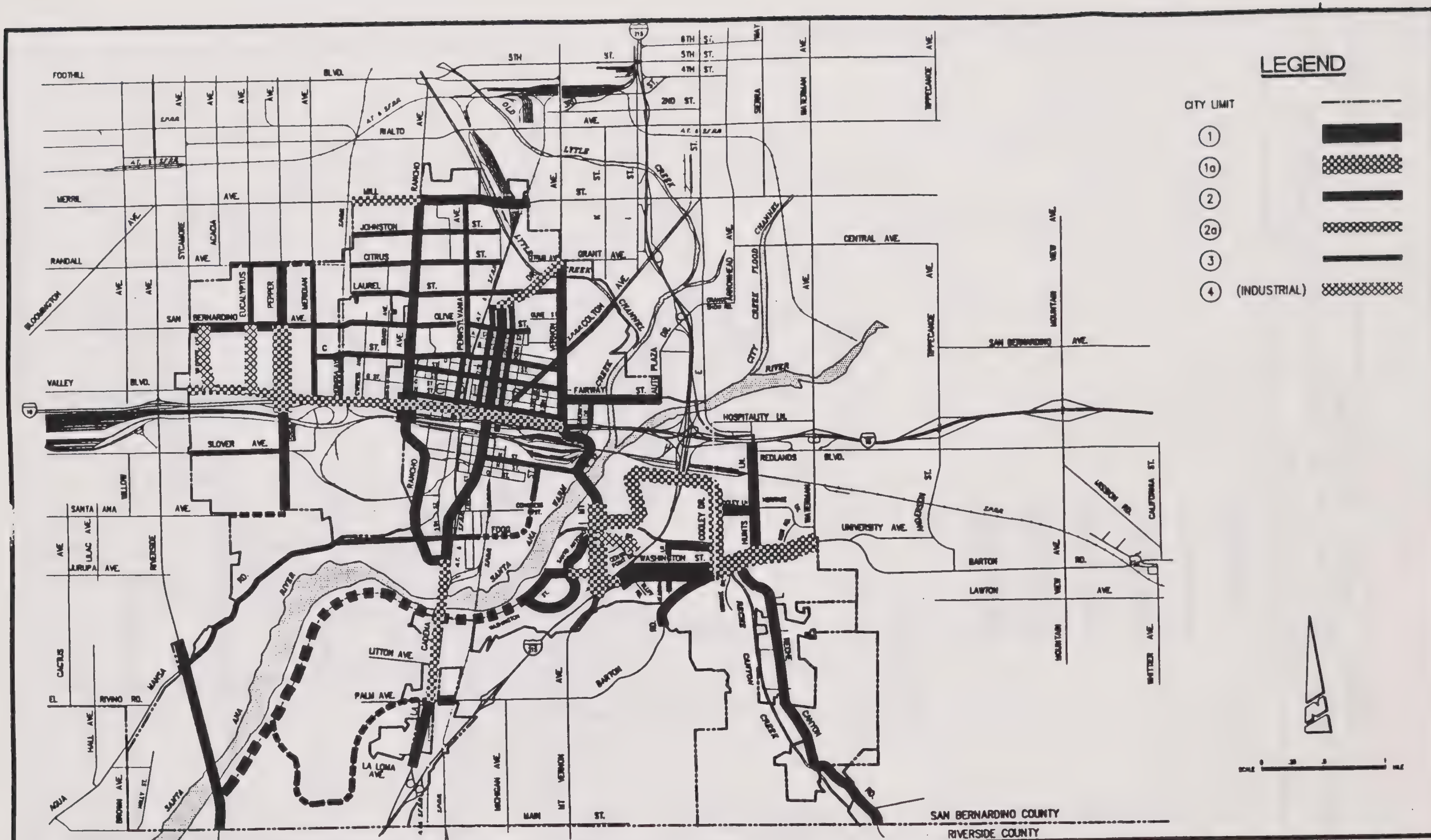
GENERAL PLAN CIRCULATION ELEMENT UPDATE
CIRCULATION PLAN

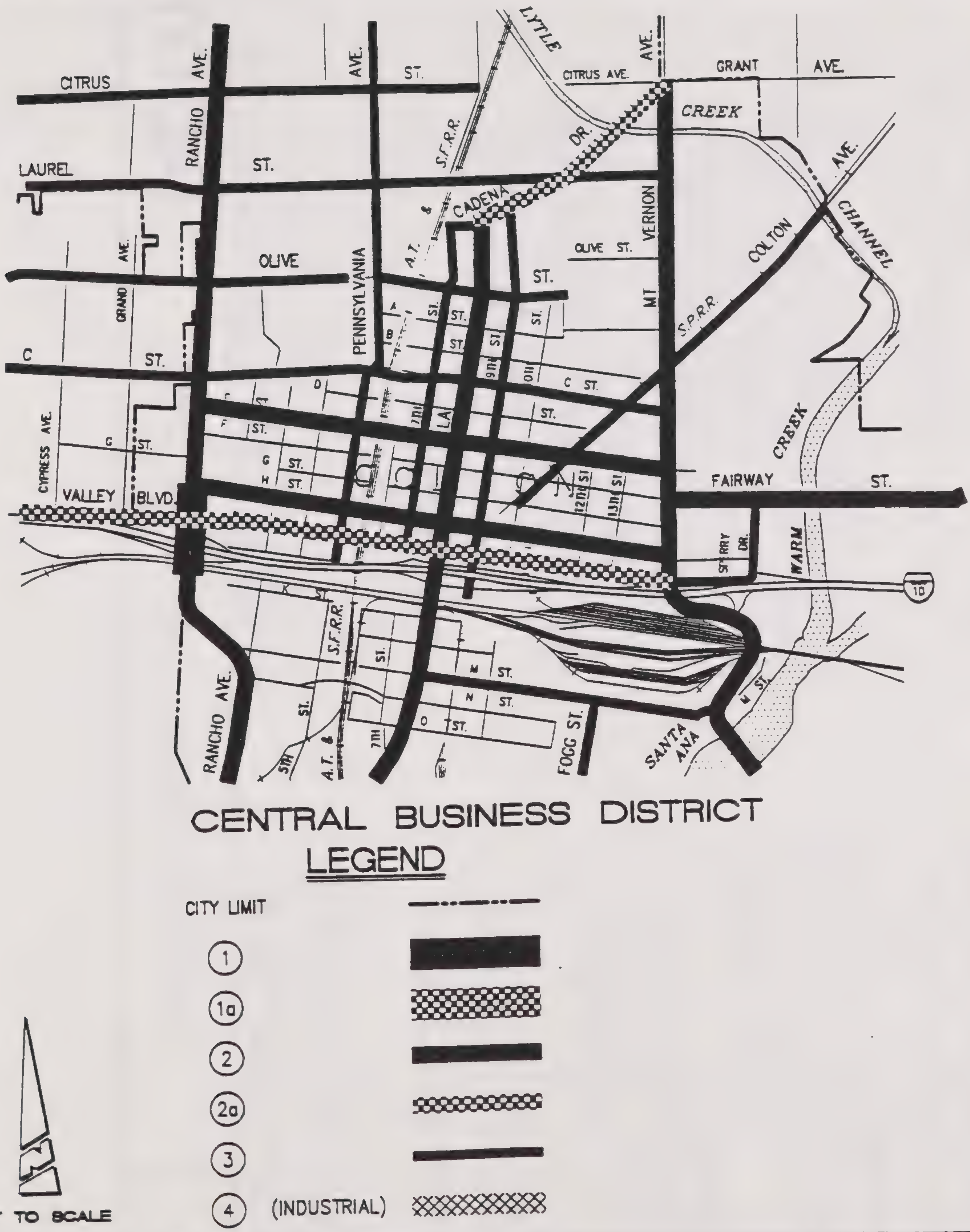
FIGURE 2b

COLTON1



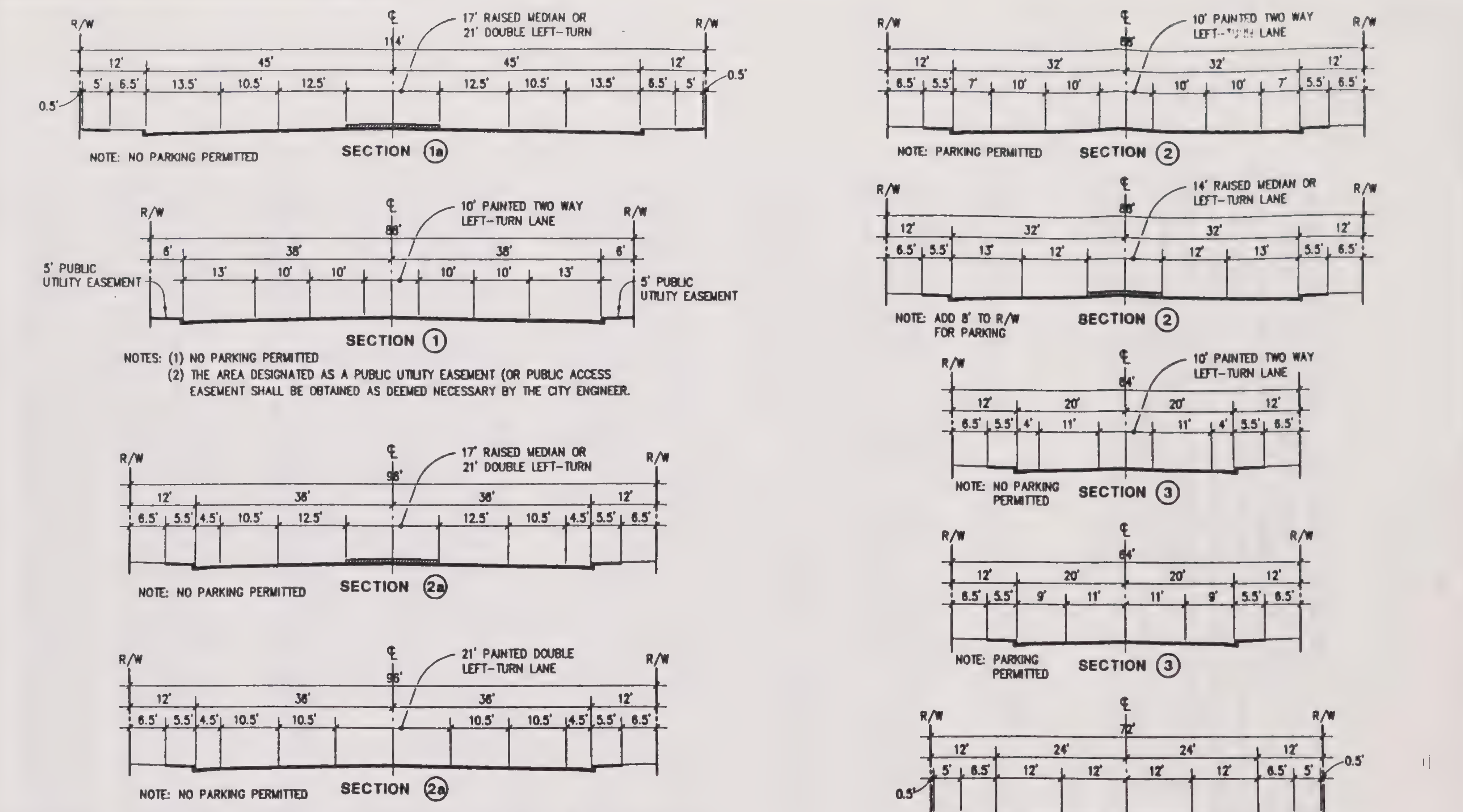
CITY OF COLTON
GENERAL PLAN CIRCULATION ELEMENT UPDATE
STREET CROSS SECTIONS

FIGURE 2c



CITY OF COLTON
GENERAL PLAN CIRCULATION ELEMENT UPDATE
STREET CROSS SECTIONS

FIGURE 2d



NOTES: (1) FOR LOCAL STREETS, REFER TO CITY OF COLTON STANDARD DESIGN SPECIFICATIONS.
(2) SEE SPECIFIC PLANS FOR MODIFICATIONS TO THESE STANDARD CROSS SECTIONS.

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TYPICAL STREET CROSS SECTIONS

FIGURE 2e

COLT_XS.DWG

The lane specifications and dimensions of the six standard cross sections are shown on Figure 2e. These standard sections should be followed as streets in the City of Colton are constructed or improved.

Freeways and Expressways: Two freeways are shown on the Circulation Plan - I-215, a north/south, eight-lane route. Caltrans currently is planning to construct one HOV lane in each direction on I-215 from the Riverside County line to the proposed Route 30, northerly of the Colton city limits.

The other freeway shown on the Circulation Plan is I-10, an east/west, eight-lane route. No plans currently exist for widening this facility, but HOV lanes may be installed in the near future..pa

Interchanges: The Circulation Plan shows the locations of existing interchanges on both I-10 and I-215 freeways. It is proposed to modify the I-215 at Washington Street Interchange in the near future by the Colton Redevelopment Agency. Complete re-construction of this interchange is being proposed by the San Bernardino County and Riverside County Metropolitan Planning Organizations (MPO's) depending on funding capability.

Freeway Crossings: The Circulation Plan shows the locations of existing freeway crossings along I-10 at Hunts Lane and along I-215 at Fairway Street and Cooley Drive. These crossings have the same number of through lanes as the adjoining street as shown on the plan. The crossings reduce traffic volumes on the arterials that have interchanges and are key elements in providing continuity of circulation across the I-10 and I-215 freeways.

Secondary and Primary Arterial Streets: The function of the arterial streets is to both provide access to the remainder of the region as well as the community and to serve as access to land establishments.

Collector Streets: The collector streets provide a connection between the arterial streets and the local streets. Collector streets also have the function of providing access to establishments and inter-neighborhood circulation.

Local Streets: Local streets serve only to provide the driver with access to and from establishments.

Service Levels

The Circulation Plan has been developed in the recognition of the need to relieve existing congestion and to provide a circulation system that can accommodate future anticipated growth. The plan also takes into account the fact that growth anticipated to occur in areas surrounding the planning area will use the street system in Colton. The goal of the system is to ensure that all signalized intersections operate at an acceptable peak hour Level of Service. The proposed definition of "accepted Level of Service" in traffic engineering terms is Level of Service "E" or better as defined in the 1985 Highway Capacity Manual.

The circulation system of the City of Colton will be composed primarily of a system of signalized arterials, and it is important to recognize that the signalized intersections are the locations within the system where the Level of Service must be satisfied. The vast majority of system vehicle delay occurs at the signalized intersections because vehicles are required to stop on one arterial to provide time to serve the vehicles on the crossing arterial.

The signalized Level of Service standards are in accordance with the current edition of the Highway Capacity Manual, as developed by the National Research Council of the National Academy of Sciences. The stop time delay methodology for signalized intersections as documented in the Highway Capacity Manual is the same methodology being recommended for adoption by San Bernardino County and its political subdivisions in accordance with the Special Committee Report published by the Riverside/San Bernardino Section of the Institute of Transportation Engineers.

Table 1 titled "Levels of Service for Signalized Intersections" indicates the ranges in the amounts of average stop time delay for a vehicle for the various Levels of Service ranging from "A" through "F".

For specific intersection evaluation, the delay figure used will be the weighted average of vehicular stop time delay for all movements of traffic entering the intersection during the A.M. and P.M. peak hours.

The degree to which a signalized intersection approaches capacity is also important. An ICU (Intersection Capacity Utilization) or "X" value of less than 1.00 represents the City's general policy guideline.

Special Intersection Geometrics

At the intersections of arterial streets shown on the Circulation Plan with a star symbol, special geometrics are needed to handle anticipated traffic volumes during the peak periods within the prescribed Level of Service. The geometrics at these special intersections may involve double and single instead of single left turn lanes only and special exclusive right turn lanes for one or more of the roadway approaches. The determination of the specific geometrics depends on the specifics on the traffic volumes anticipated for the particular intersection.

Provision of special geometrics at these highly used intersections are needed to keep average stop time vehicle delay within the limits adopted as a policy issue in the General Plan.

Certain legs of these intersections requiring special geometrics are expected to require lanes in addition to the numbers of lanes designated by the cross sections, shown on Figures 2c and 2d, in the form of right-turn lanes.

TABLE 1
LEVELS OF SERVICE FOR SIGNALIZED INTERSECTIONS

LEVEL OF SERVICE	STOPPED DELAY PER VEHICLE (SECONDS)
A	5.0
B	5.1 to 15.0
C	15.1 to 25.0
D	25.1 to 40.0
E	40.1 to 60.0
F	60.0

Level-of-service A describes operations with very low delay, i.e., less than 5.0 seconds per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

Level-of-service B describes operations with delay in the range of 5.1 to 15.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.

Level-of-service C describes operations with delay in the range of 15.1 to 25.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.

Level-of-service D describes operations with delay in the range of 25.1 to 40.0 seconds per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

Level-of-service E describes operations with delay in the range of 40.1 to 60.0 seconds per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

Level-of-service F describes operations with delay in excess of 60.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

These special intersections are listed as follows:

■	Exclusive right-turn lane	Washington Street @ Cooley Drive/Barton Road (west, north, and south legs)
■	Exclusive right-turn lane	Washington Street @ Reche Canyon Road (west leg)
■	Exclusive right-turn lane	Redlands Boulevard/Steel Road @ Hunts Lane (east leg)
■	Exclusive right-turn lane	Washington Street @ Waterman Avenue (north and east legs)
■	Exclusive right-turn lane	Valley Boulevard @ Rancho Avenue (south leg)
■	Exclusive right-turn lane	Barton Road @ La Cadena Drive (west leg)
■	Exclusive right-turn lane	La Cadena Drive/Grant Avenue @ Mt. Vernon Avenue (north leg)
■	Exclusive right-turn lane	Mt. Vernon Avenue @ I-10 E/B (east leg)
■	Exclusive right-turn lane	Mt. Vernon Avenue @ Washington Street (W/O I-215) (all legs)
■	Exclusive right-turn lane	Washington Street @ Cooley Drive/Barton Road (west, north and south legs)

HOV Facilities

Ultimately, HOV lanes will be constructed along both I-10 and I-215, providing an alternate mode of transportation for the City of Colton.

These facilities will help work commuters living in the City of Colton to reach their places of employment without having to battle freeway congestion, and will help the City of Colton to satisfy stringent air quality regulations which will have to be dealt with when the City of Colton undergoes preparation of its Congestion Management Plan.

Truck Routes

The implementation of a truck route master plan may become necessary in the future with increasing traffic volumes which will be impeded heavily by the presence of large trucks.

Pedestrian Circulation

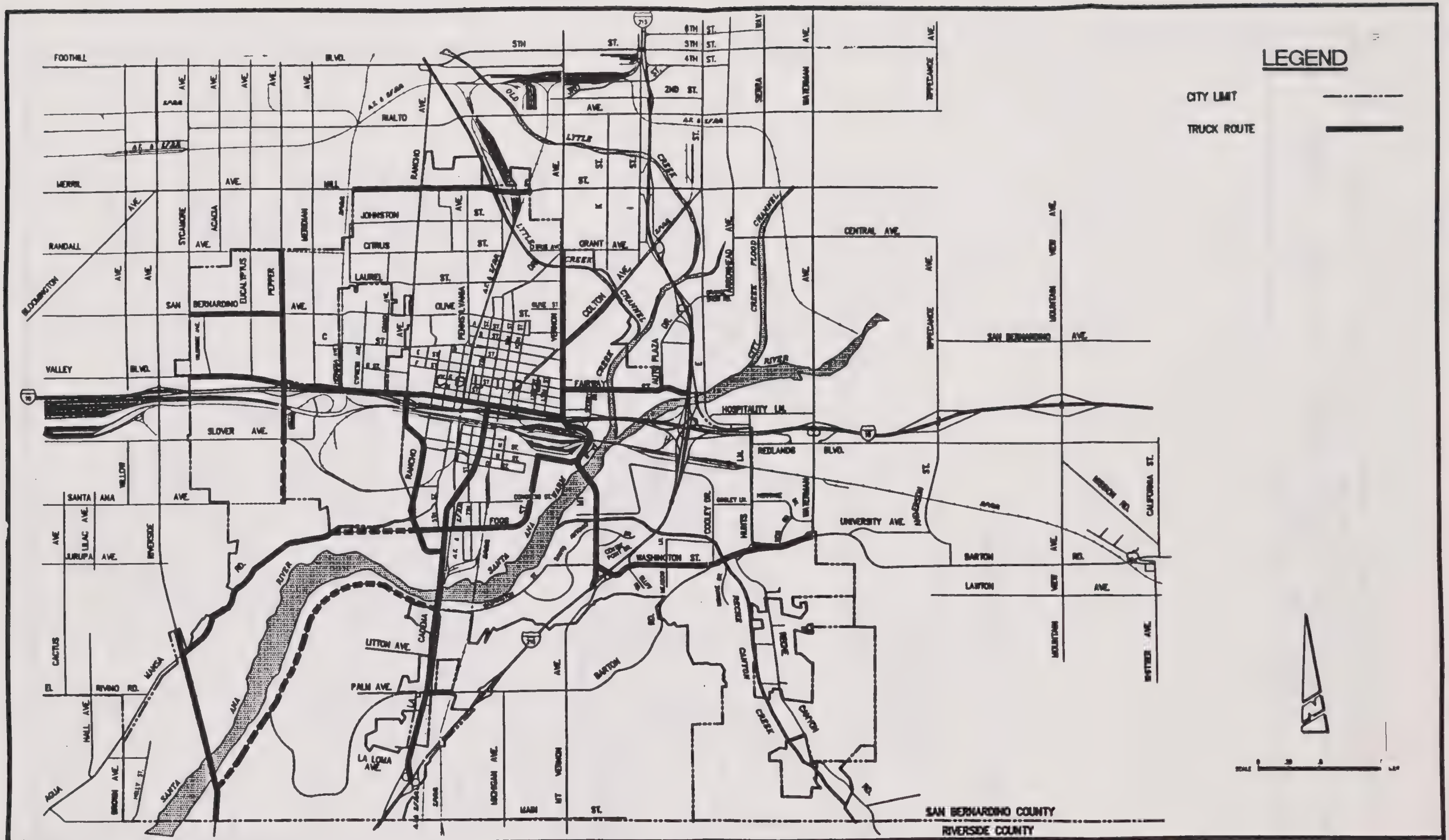
An essential component of the circulation system is a safe, efficient pedestrian circulation system. The provision of sidewalks and pedestrian street crossings will provide inter-neighborhood non-motorized circulation for the community.

Locations which generate a significant amount of pedestrian traffic, such as schools, should be evaluated for safe pedestrian circulation. In places of exceptionally high pedestrian traffic, special pedestrian crossings with a painted crosswalk accompanied by a flashing amber signal should be considered when warranted.

The designated truck routes will restrict heavy trucks from using residential streets and will provide for a safe and efficient means of access for trucks between the City of Colton and the remainder of the region.

Streets which are designated truck routes should be constructed with adequate sub-base in order to support the heavy trucks, should have the minimum required curb radii for truck movement and should be free of any obstacles (trees, overhead wires, signs, luminaires, etc.) which may interfere with truck movement.

Figures 3a and 3b show the Truck Route Master Plan.



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CITY OF COLTON
GENERAL PLAN CIRCULATION ELEMENT UPDATE
TRUCK ROUTE MASTER PLAN

FIGURE 3a

CITY OF COLTON
GENERAL PLAN CIRCULATION ELEMENT UPDATE
TRUCK ROUTE MASTER PLAN

FIGURE 3b

BICYCLE CIRCULATION COMPONENT

Regional Trails

Currently, there are two proposed regional multi-purpose trails which will ultimately pass through the Colton City limits. These trails are classified as Class I bikeways per Caltrans standards and will be commissioned by the San Bernardino County Department of Parks and Recreation. These multi-purpose trails will accommodate bicycle, equestrian and pedestrian usages.

The primary regional trail which will pass through Colton is the Santa Ana River regional trail. This trail, shown on Figure 4a, will ultimately link the San Bernardino National Forest with the Pacific Ocean and will run immediately parallel to the Santa Ana River. Two locations at which cyclists will be able to access the Santa Ana River trail from Colton surface streets or vice-versa will be along both Riverside Avenue and La Cadena Drive where these two streets intersect the Santa Ana River. The location at Riverside Avenue will be a connection point only, while the location on La Cadena Drive will be a staging area, where cyclists will be able to drive their vehicles to this area, park and access the Santa Ana River trail on bicycle. The staging area will also have a restaurant, restrooms and bicycle facilities such as air compressors for tires.

The other regional trail proposed to pass through the City of Colton is the Reche Canyon trail. This trail will pass from Riverside County through Reche Canyon and will follow Reche Canyon Creek through Cooley Ranch and connect to the Santa Ana River Trail. This trail will be at-grade and will be more accessible to surface streets than the Santa Ana River Trail. The Reche Canyon Trail is shown on Figure 4a.

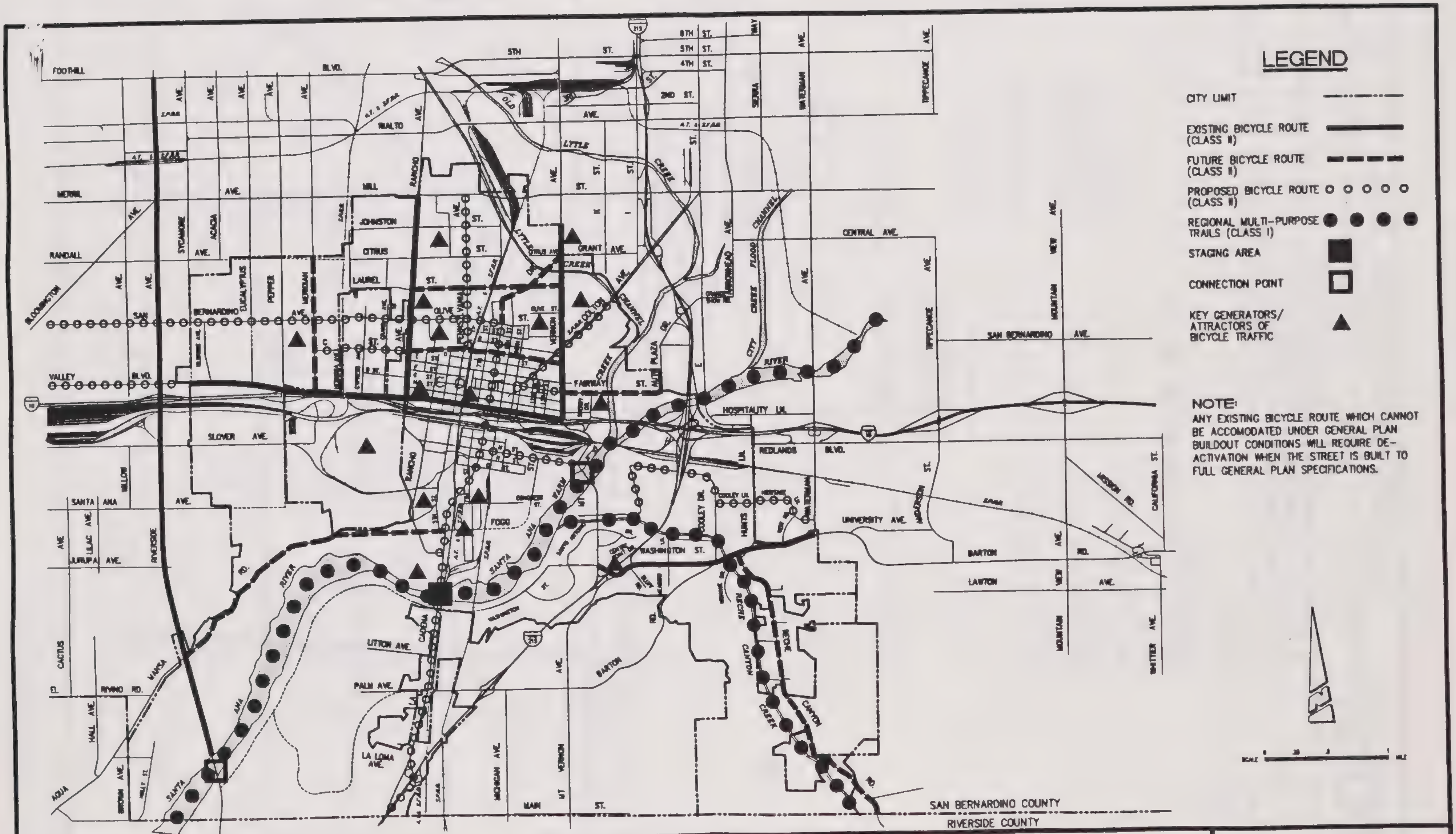
City Bicycle Routes

Figures 4a and 4b show the City of Colton bicycle routes. These bicycle routes are all on city surface streets as opposed to natural entities which the regional trails follow. The City of Colton bicycle routes are classified as follows:

- Existing bicycle routes
- Future bicycle routes
- Proposed bicycle routes

All City of Colton bicycle routes will be established as bicycle lanes which will be striped and signed on the surface streets shown on Figures 4a and 4b. These bicycle routes are classified as Class II bikeways per Caltrans standard.

Currently, the bicycle traffic in the City of Colton is minimal and is not anticipated to increase by a significant amount. The bicycle route system, once fully developed, should adequately serve the key generators/attractors of bicycle traffic shown on Figures 4a and 4b.



CITY OF COLTON
GENERAL PLAN CIRCULATION ELEMENT UPDATE
BICYCLE ROUTE MASTER PLAN

FIGURE 4a

CENTRAL BUSINESS DISTRICT

LEGEND

CITY LIMIT		STAGING AREA	
EXISTING BICYCLE ROUTE (CLASS II)		CONNECTION POINT	
FUTURE BICYCLE ROUTE (CLASS II)		KEY GENERATORS/ ATTRACTORS OF BICYCLE TRAFFIC	
PROPOSED BICYCLE ROUTE (CLASS II)			
REGIONAL MULTI-PURPOSE TRAILS (CLASS I)			

NOTE:
ANY EXISTING BICYCLE ROUTE WHICH CANNOT BE ACCOMODATED UNDER GENERAL PLAN BUILDOUT CONDITIONS WILL REQUIRE DE-ACTIVATION WHEN THE STREET IS BUILT TO FULL GENERAL PLAN SPECIFICATIONS.

NOT TO SCALE

MGA

CITY OF COLTON
GENERAL PLAN CIRCULATION ELEMENT UPDATE
BICYCLE ROUTE MASTER PLAN

FIGURE 4b

COLTON1

These key generators/attractors of bicycle traffic include all schools, major employment centers and shopping centers within the City. The most significant key locations in the Colton vicinity are expected to be:

- San Bernardino Valley College
- Colton High School
- Colton Plaza
- Santa Ana River Trail staging area

Bicycle racks should be provided at these and other key bicycle traffic locations in order to stimulate an interest in bicycle ridership in the City of Colton.

The provision of bicycle facilities in the City of Colton will aid the community in making short trips by bicycle rather than automobile. This reduction in reliance on the automobile will also help the City of Colton satisfy the strict air quality standards being imposed on jurisdictions.

PUBLIC TRANSPORTATION COMPONENT

Rail Line/Stations

The Southern California Regional Rail Authority, in cooperation with SANBAG and the Los Angeles County Transportation Commission, is currently establishing a commuter rail service line which will utilize the existing Southern Pacific Rail line, shown on the Circulation Plan, that parallels I-10. This commuter line is part of the Metrolink program and will provide service between San Bernardino and downtown Los Angeles. There is no planned stop in Colton along this line, but there will be passenger terminals in both San Bernardino and Rialto. The proposed start-up date for this commuter line is fall of 1992.

Another Metrolink route is planned to pass through Colton along the Santa Fe Rail line adjacent to La Cadena Drive. This rail line will link the Colton vicinity with Riverside County and Orange County. Two stops are proposed in Colton along this line, the first stop near the La Cadena and Fogg intersection, the second near the intersection of 6th Street and "H" Street.

These rail commuter lines will also benefit Colton residents who work in Los Angeles or Orange Counties, and will aid the City of Colton deal with the strict air quality regulations.

These two proposed commuter rail lines along with the rail stations are shown on the Circulation Plan.

Bus Facilities

Existing bus routes as shown on Figures 5a and 5b will be expanded by OMNITRANS as required by new development

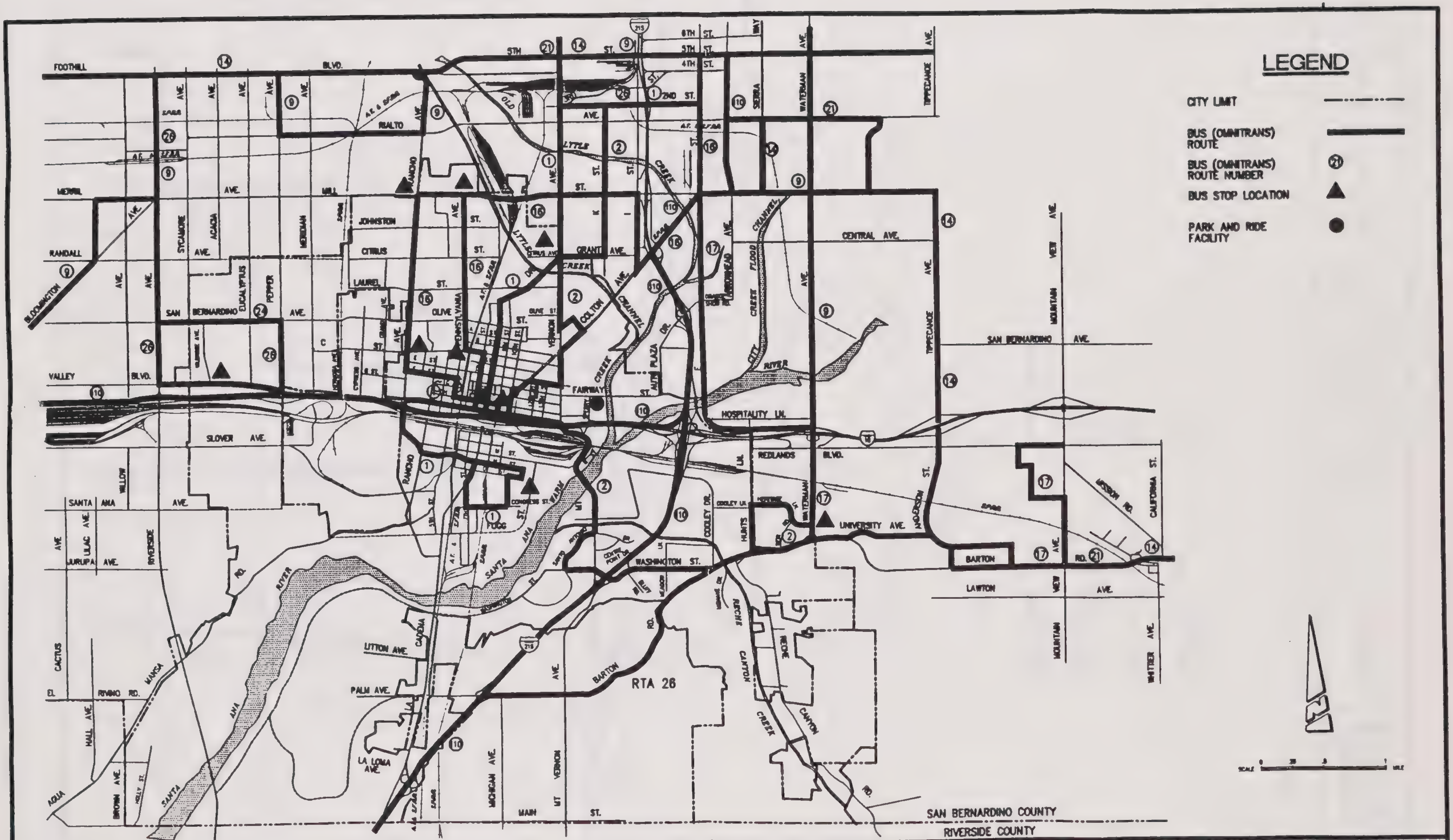
INFRASTRUCTURE COMPONENT

Water System

Domestic and irrigation services are provided through the City's Water Department, a division of the City of Colton Public Utilities Department. Major off and on-site extension of the water facilities along with payment of appropriate fees are required to provide delivery of the required domestic and fire flow. Installation of dual irrigation systems for all projects is required in order to utilize reclaimed water for irrigation of parks, landscaped medians and planters, etc. The current water master plan for the City of Colton indicates that the City's water demand under buildout conditions can be adequately served.

Sewage System

The City of Colton Public Utilities Department provides and maintains the City's sewage system. Construction of dry sewage facilities is re quired for those projects constructing on-site septic systems as provided for by local and State health specifications and standards.



CITY OF COLTON
GENERAL PLAN CIRCULATION ELEMENT UPDATE
BUS ROUTES

FIGURE 5a

CENTRAL BUSINESS DISTRICT

LEGEND

CITY LIMIT

BUS (OMNITRANS) ROUTE

BUS (OMNITRANS) ROUTE NUMBER

BUS STOP LOCATION

PARK AND RIDE FACILITY

NOT TO SCALE

MGA

CITY OF COLTON
GENERAL PLAN CIRCULATION ELEMENT UPDATE
BUS ROUTES

FIGURE 5b

COLTON1

Major on and off-site construction of sewage systems including lift stations and rehabilitation and upsizing of existing sewer mains and treatment plant along with payment of appropriate fees will be required to provide for sufficient Level of Service.

The waste discharge throughout the city is monitored by the City's Public Utilities Department.

The current sewer master plan for the City of Colton indicates that the City's sewer system usage demand under buildout conditions can be accommodated.

Storm Drain

The storm drain system is provided and maintained by the City of Colton Public Works Department.

The current storm drain master plan for the City of Colton indicates that the City's storm drains will be able to adequately serve the runoff demand expected under buildout conditions.

IMPLEMENTATION PROGRAM

IMPLEMENTATION MEASURES

The City's Circulation Element addresses a range of circulation-related issues areas including the provision of a safe and efficient street system, development of the regional roadway network, efficiency of the circulation system, development of the public transportation system, special intersection geometrics, adequate off-street parking, truck circulation routes, bicycle considerations, and public infrastructure associated with water, sewer, and storm drain systems. Implementation measures are summarized as follows:

MASTER PLAN OF STREETS

1. City/Regional Circulation: Arterial streets within the planned street system will be constructed and maintained according to the Circulation Plan based on standards related to their function and traffic capacity.

Responsible Agency: Public Works/Engineering/Department of Community Development.

Funding Source: Development Fees/Exactions, Redevelopment Funds, City Capital Improvements Program and Maintenance Program.

Time Frame: Ongoing.

Related Circulation Element Policies: 1.1, 1.2, 1.4, 1.5, 1.6, 3.1

2. Transportation System Management (TSM): To maximize the capacity of the existing and planned traffic system. Capital improvements such as restriping, spot widening, and traffic signal coordination will be made.

Responsible Agency: Public Works Department/Engineering.

Funding Source: Development Fees/Exactions, Redevelopment Funds, City Capital Improvements Program and Maintenance Program, federal, state, and local (Measure I) funding.

Time Frame: Ongoing.

Related Circulation Element Policies: 1.3, 1.8

3. Transportation Demand Management (TDM): Following the Air Quality Management Plan for the South Coast Air Basin, employers of over 100 employees will be involved in a program aimed at reducing the number of vehicles using the roadway system during peak hours through vanpooling, ride-sharing, staggered work hours and other methods.

Responsible Agency: Community Development Department

Funding Source: Development Fees/Exactions, City Capital Improvements Program and Maintenance Program

Time Frame: Within two years

Related Circulation Element Policies: 1.3, 1.8, 2.3

PUBLIC TRANSPORTATION PLAN

4. Bus Service: OMNITRANS will offer fixed route service on local and express routes. Park-and-ride facilities will be provided to promote additional express bus service along the freeway corridors.

Responsible Agency: OMNITRANS/Caltrans

Funding Source: OMNITRANS

Time Frame: Ongoing

Related Circulation Element Policies: 2.1, 2.2, 2.4

5. Commuter Rail: A commuter rail line will be established in the near future in the Colton vicinity to support regional commuting trips.

Responsible Agency: SANBAG

Funding Source: State rail bond measures/County sales tax proceeds

Time Frame: 1992

Related Circulation Element Policy: 2.4

NON-MOTORIZED TRANSPORTATION

6. pedestrian Circulation: Sidewalks exist along most City arterial streets and will be constructed as part of the improvements to new arterial roadways to facilitate safe and convenient pedestrian movement.

Responsible Agency: Public Works Department/Engineering

Funding Source: Development Fees/Exactions, City Capital Improvements Program and Maintenance Program

Time Frame: Ongoing

Related Circulation Element Policies: 1.2

7. Bicycle Facilities: Class I (paths) and Class II (lanes) bikeways will be maintained and provided along most major streets within the City to promote the use of bicycles. These bikeways will be integrated into the overall County bikeway system.

Responsible Agency: Public Works Department/Engineering

Funding Source: Development Fees/Exactions, City Capital Improvements Program and Maintenance Program, federal, state and local funds.

Time Frame: Ongoing

Related Circulation Element Policies: 2.4, 2.6

PARKING

8. Off-Street Requirements: The City's Zoning Ordinance includes off-street parking requirements for various types of development, allowances for parking reductions of development incentives where effective demand management programs are utilized, and allowances for joint use of parking facilities where an appropriate mix of land uses exists.

Responsible Agency: Department of Community Development/Public Works Department/Engineering

Funding Source: Development Fees/Exactions

Time Frame: Ongoing

Related Circulation Element Policies: 4.1, 4.2

TRUCK ROUTES

9. Truck Route Designation: Planned primary truck routes will be identified, signed and improved to accommodate truck travel.

Responsible Agency: Department of Community Development/Public Works Department/Engineering

Funding Source: City Capital Improvements Programs and Maintenance Program/Development Fees/Exactions

Time Frame: Ongoing

Related Circulation Element Policies: 1.11

INFRASTRUCTURE

10. Water System: The City's Public Utilities Department provides domestic and irrigation service, including use of reclaimed water.

Responsible Agency: Public Utilities Department

Funding Source: User Fees/Development Fees

Time Frame: Ongoing

Related Circulation Element Policies: None

11. Sewage System: The City of Colton Public Utilities Department provides sewage collection and treatment services for the City of Colton.

Responsible Agency: Public Utilities Department

Funding Source: User Fees/Development Fees

Time Frame: Ongoing

Related Circulation Element Policies: None

12. Storm Drain System: The City's Public Works Department is responsible for storm drain master planned facilities.

Responsible Agency: Public Works Department

Funding Source: Drainage Fees

Time Frame: Ongoing

Related Circulation Element Policies: None

TECHNICAL METHODOLOGY

METHODOLOGY UTILIZED FOR THE CIRCULATION ELEMENT UPDATE

INTRODUCTION

The Year 2010 traffic volume forecasts necessary to update the Circulation Element were performed using the Riverside-San Bernardino (RIV-SAN) traffic volume forecasting model developed and maintained by the Southern California Association of Governments (SCAG). This transportation planning model is a sub-area model used for conducting traffic forecasts for the metropolitan areas of Riverside and San Bernardino Counties. The detail of this model is very broad and traffic volume forecasts for the City of Colton required a great deal of modifications to this model in order to achieve greater accuracy for city level planning. In fact, the requirements of this project mandated that traffic volumes be predicted for all intersections within the City from collector level on up.

Aspects of the traffic volume forecasting for this project were in total conformity with SCAG planning policies. Since the RIV-SAN model was used, and the forecasting methodology was entirely within the limits of the RIV-SAN model, SCAG determined that the City of Colton traffic forecasting model was in entire conformity with the regional model.

YEAR 2010 TRAFFIC VOLUME FORECASTING

Land Use

A land use database was obtained from San Bernardino County through the county's Geographical Information System (GIS). This land use database represented 1990 conditions within the City of Colton and outlying areas. The traffic analysis zone map shown in Appendix "A", shows the limits of the study area for the City of Colton Circulation Element Update. As shown on the traffic analysis zone map, there are 27 "large" regional zones outlined by the thick boundaries, and there are 222 "small" traffic analysis zones outlined by the thinner boundaries. The 27 regional zones were disaggregated into 222 local traffic analysis zones in order to achieve greater accuracy within the Colton vicinity. The land use database obtained from San Bernardino County contained the land use database listing of all land use categories and sizes in terms of acreage for each of the 222 local traffic analysis zones. This land use database was compiled according to the policies of the current City of Colton General Plan.

The existing land use database was used for purposes of validating the traffic forecast model. For the Year 2010 forecast model, the existing land use database was converted into a Year 2010 land use database for the 222 local traffic analysis zones. Land use totals were added to the existing land use database in order to compile the Year 2010 build-out land use database in accordance with the policies of the existing City of Colton General Plan. The Year 2010 land use database subsequently was used in developing the socio-economic data used for performing the Year 2010 traffic volume forecasts.

Socioeconomic Data

The RIV-SAN model utilizes socioeconomic data (SED), as opposed to land use data, for purposes of estimating trips within the model. In order to remain consistent with SCAG planning policies, the land use variables within the land use database required conversion into SED format.

For purposes of validating the traffic model, the existing land use database was first converted to reflect 1987 conditions by conducting a check for land developments which occurred between 1987 and 1990. The land use developments which occurred within this three year span were deducted from the existing land use database. Once the 1987 land use database was compiled, the land use data was converted into SED through conversion factors provided by SCAG. The SED was subsequently run through the RIV-SAN model to validate the model.

The Year 2010 SED database utilized the Year 2010 SCAG SED forecast directly. The SED variables forecasted by SCAG for the 27 RIV-SAN regional zones shown on the traffic analysis zone map in Appendix "A" were disaggregate into the 222 local traffic analysis zones by means of the Year 2010 land use database. The 2010 land use totals for each of the 222 zones were first converted to SED through the conversion factors provided by SCAG. The SED totals for the 222 zones were then added up for each local zone within each regional zone. The compiled SED totals for the 27 regional traffic analysis zones were compared to the original SED totals forecasted by SCAG for the 27 regional zones, and any major discrepancies between the two data sets were examined. The converted SED for each of the 222 zones was then divided by the converted SED totals for each of the 27 regional zones to calculate weights for each of the 222 regional zones. The SED forecasted by SCAG for the 27 regional zones was then disaggregated into the 222 zones per the weights which were computed based on the SED data set which was converted from the land use database. This resulting SED base was subsequently run through the RIV-SAN model to forecast the Year 2010 traffic volumes. The SED for the 222 traffic analysis zones is shown in Appendix "A".

Network

A local network for the City of Colton and outlying areas shown on the traffic analysis zone map in Appendix "A" was coded through the TRANPLAN software. This network was much more detailed in scope as compared to the original network representing the study area which was contained in the RIV-SAN model. This local network contained more street detail and included all major and secondary arterials as well as all collectors, within the City of Colton. The central business district of Colton was especially detailed due to its density, and in addition to surface streets, all freeways and freeway interchanges were given increased detail as well. All connectors of the Interstate 10/Interstate 215 were coded accurately within the network, in addition to the exact detail of all interchange/surface street interchanges along Interstate 10 and Interstate 215, for purposes of forecasting turning volumes at these interchanges. The high-occupancy vehicle (HOV) lanes were added to the freeways as well in a high level of detail.

The local network was also coded to a high level of detail to include the 222 centroids representing the 222 traffic analysis zones. Each of the 222 traffic analysis zones were studied on maps to determine where all access locations were located which connect the traffic analysis zones to the remainder of the network. Local streets and drive approaches in particular were located for purposes of positioning centroid connectors within the local network.

Once the local Colton networks were coded for both existing conditions and Year 2010, the networks were appended to the regional model by first erasing the Colton portion of the RIV-SAN model. The Colton study area model was then appended to the regional model through TRANPLAN software functions and subsequently connected to the remainder of the regional network. This process was done for both the 1987 base year and for Year 2010. Additional elements to the Year 2010 model were added to reflect future street conditions such as the construction of HOV lanes and additional surface streets.

Trip Generation

The Year 2010 SED base shown in Appendix "A" for the 222 local traffic analysis zones was used as the final trip generation data base for conducting the Year 2010 traffic analysis and traffic forecast. Shown on this listing in Appendix "A" are the group quarter population, total single family dwelling units, occupied single family dwelling units, total multi-family dwelling units, total occupied multi-family dwelling units, retail employment, total employment, population and income (in 1967 dollars) for each of the 222 local traffic analysis zones.

The data slightly deviates from the Year 2010 forecasted SED for the 27 regional zones to account for differences in the Year 2010 SED based on SCAG projections versus City projections. These differences account for major projects such as the construction of the county hospital, which may not have been reflected in these SCAG projections. However, when adding up the totals for the 222 traffic analyses zones, the totals very nearly match the totals of the SED variables of the 27 regional zones. The slight variation was still within the tolerances allowed by SCAG planning policies.

The Trip Generation procedure contained within the RIV-SAN model generates person trips as opposed to vehicle trips. Person trips were generated for five trip purposes that were later converted to vehicle trips for three purposes, after the mode choice procedure and a series of matrix functions through the TRANPLAN software were performed. The resulting Year 2010 calculated vehicle trips for the 222 traffic analysis zones for a.m. peak, p.m. peak, and off peak periods are shown in Appendix "A". The a.m. peak period is for two hours and the p.m. peak period is for three hours, in conformance with SCAG transportation planning policies and procedures.

Trip Distribution

The trip distribution process was performed through the use of the gravity model TRANPLAN function. The trip distribution process reads in the person trips generated by the trip generation phase and determines the trip interactions which are expected to occur in Year 2010 between the 222 local traffic analysis zones and the remainder of the traffic analysis zones within the region model. The gravity model utilizes a travel time matrix, productions and attractions from the trip generation phase, friction factors and "K" factors in performing the trip distribution. The same parameters and data were used for the trip distribution phase of the Colton model as were used in the RIV-SAN model. The only differences between the two gravity models are the productions and attractions and travel time matrix, to account for modifications made to the RIV-SAN model to increase the accuracy within the Colton area.

Trip length calculations were performed through TRANPLAN functions and compared to the RIV-SAN trip length statistics to make sure that the gravity model process was functioning properly. The resulting trip length statistics were found to be consistent with the RIV-SAN model trip length statistics. The Year 2010 trip length statistics for the with and without circulation element scenarios for the 222 Colton local traffic analysis zones are shown in Appendix "B". These Year 2010 trip length statistics for both time and distance were used in performing the environmental analysis for the environmental impact report which accompanies this planning document.

Mode Choice

The Mode Choice function within the RIV-SAN model utilizes computer routines which are independent of the TRANPLAN Software and were fabricated specifically for the RIV-SAN model. The mode choice step determines, for all trip interchanges of the person trip table computed by the gravity model function, the person trips which are expected to travel by automobile and the person trips which are expected to travel by transit.

The mode choice function further divides the vehicle-person trip table for the home-based work purpose and estimates how many trips will be made by drive-alone vehicle trips and how many person vehicle trips will be made by carpool trips. The mode choice function for the Year 2010 RIV-SAN traffic forecast model performs one further step than the does the 1987 mode choice function, in that the Year 2010 function uses congested travel times on links from the model. When estimating the carpool trips versus drive-alone trips to account for the presence of HOV lanes, a special SED data set, highway travel time matrix, transit travel time matrix, and transit fare matrix are all utilized by the mode choice function.

The product of the mode choice function is two person trip tables, one being the person-vehicle trip table, the other being the person-transit trip table. These trip tables have been consolidated from five to three trip purposes at this point.

Vehicle Trip Table Conversion

The person-vehicle trip table obtained from the mode choice phase was subsequently converted into a six-purpose vehicle trip table through TRANPLAN matrix functions. The person-vehicle trips were first converted into vehicle trips through the use of auto occupancy factors. The resulting vehicle trips were next converted into origin-destination (O/D) format for the a.m., p.m., and off-peak periods through the use of directional split and time-of-day factors. O/D format refers to the number of one-way trips which are made from one zone to another zone. Production-attraction (P/A) format, on the other hand, refers to the number of two-way trips which are made from one zone to another zone and eventually return to the production zone in the 24 hour period.

The resulting vehicle trip table was compiled for six trip purposes: a.m. peak drive-alone vehicle trips, a.m. peak carpool vehicle trips, p.m. peak drive-alone trips, p.m. peak carpool trips, off peak drive-alone trips and off peak carpool trips.

Trip Assignment

The final step in the transportation modeling process involves taking the trips within the trip table and assigning the trips from origin zones to destination zones along logical paths from the origin zone to the destination zone. Once trip interchanges within the trip table have been assigned along paths determined by the TRANPLAN software as the most logical paths from the given origin zones to the given destination zones, each vehicle trip is subsequently assigned to each link along the logical path. The process is repeated for each O/D interchange within the trip table to arrive at a total traffic volume forecast for each link within the model.

The RIV-SAN model utilizes the equilibrium highway load TRANPLAN function to perform the a.m. peak and p.m. peak period traffic assignments while the stochastic highway load function is used to assign the off peak period drive-alone trips. The Year 2010 traffic assignment process is complex and requires a great deal of time to execute. In the first phase of the Year 2010 traffic assignment process, the drive-alone trips for each time period are loaded on the highway network with the HOV facilities blocked off. The second phase of the traffic assignment process loads the carpool trips for each period onto the network already containing the drive alone trips for each period. The HOV facilities are opened to load the carpool trips. The equilibrium highway load TRANPLAN function is used to perform the carpool trip assignments for each peak period since the carpool trips during the off peak period occur for a short duration only within the 19-hour off peak period. The equilibrium highway load function is more appropriate for traffic assignments of a short duration versus the stochastic highway load function, which is more appropriate for traffic forecasts of a longer duration.

The results of the traffic assignment process includes three loaded networks for each of the time periods. These networks contain both the drive-alone and carpool trips for Year 2010. The trips which are loaded onto the HOV facilities are carpool trips only.

Traffic Model Validation

Prior to running the Year 2010 forecasts, the traffic model required a validation process, a trial and error procedure in which the base year traffic model is run repetitively in order to force the traffic model to simulate actual traffic volumes.

The Colton base year model resembles 1987 conditions. Therefore, 24 hour volume machine counts were gathered for the City of Colton and outlying areas for 1987. All available 1987 counts were collected in addition to other counts which were recorded within other years and were adjusted to reflect 1987 traffic volume conditions. Screenline checks were performed during the validation phase on all major surface street and freeway facilities at certain locations. At the conclusion of each 1987 validation model run, the 24 hour volumes from the 1987 model were extracted from the model output for these screenline check locations and compared to the actual traffic volume recorded at the particular screenline location. Appendix "C" contains a table which shows the resulting ground count and model volumes at the screenline locations for the final validation run. During each validation run, links carrying traffic model volumes which exceeded the maximum desirable percentage difference error for the given link were adjusted in terms of speed and capacity in order to force the model to simulate the actual traffic model volume as closely as possible. The maximum desirable percentage difference errors for the screenline locations where taken from the graph, shown in Appendix "C", entitled "Maximum Desirable Error for Link Volumes". This graph was taken from NCHRP (National Cooperative Highway Research Program) Report 255 and is used for determining if the model volumes are acceptable per NCHRP Report 255 Methodology. If a model volume along a given link exceeded the maximum desirable deviation in terms of percentage difference, the link was adjusted by giving the link a new area type index, a number used by the RIV-SAN model as an index for obtaining a speed capacity for the links within the model. The base year model was then re-ran with the changes included, and the volumes once again were compared to the base year ground counts. If there were screenline links exceeding the maximum desirable deviation, the links were adjusted and the model was re-ran. Approximately 14 validation runs were made for the Colton model and the resulting validation results are shown in Appendix "C". A review of Appendix "C" shows that all screenline links were within 9% on average of the base year actual ground counts.

TRAFFIC VOLUME ADJUSTMENT

Since traffic modeling results are usually subject to error, the traffic model volume results from the Year 2010 traffic model required adjustment before the volumes could be analyzed for capacity analyses purposes.

Intersection volumes for approximately 88 intersections within the City of Colton were extracted from the Year 2010 model for capacity analysis purposes. These intersection volumes were adjusted once they were extracted from the TRANPLAN software before they were used for capacity analysis purposes. The volumes were adjusted to account for inaccuracies within the traffic model. The process for adjusting the intersection volumes involved observing the differences between the actual volumes for 1987 conditions for the 88 intersections during a.m. and p.m. peak hours and the volumes generated by the 1987 traffic model for the 88 intersections. The differences for all 88 intersections were stored in computer files for purposes of adjusting the Year 2010 intersection volumes. Once the intersection volumes were extracted from the TRANPLAN software at the conclusion of each Year 2010 model run, the intersection model volumes were adjusted with the difference files which were compiled based on the intersection volume differences observed while running the validation model. The Year 2010 intersection volumes are then adjusted by these files and subsequently entered into the MONITOR program, a program developed by MGA for intersection capacity analyses purposes.

The resulting adjusted Year 2010 intersection volumes for a.m. and p.m. peak hours were also used for conducting the Year 2010 arterial capacity analysis. The approaches at the intersections were added to derive the two-way street volumes between intersections for conducting the arterial capacity analysis. Appendix "D" shows the resulting 2010 average daily and peak hour adjusted to traffic volumes along major facilities in the City of Colton.

INTERSECTION CAPACITY ANALYSIS

The intersection capacity analysis for this project was conducted through the use of the MONITOR package. MONITOR is a program developed by MGA for purposes of traffic growth monitoring and traffic operational database purposes.

The MONITOR program has a built-in interface which enables the user import intersection volumes from the TRANPLAN Software. Included within this routine is an adjustment algorithm which reads in the intersection volume difference files which were compiled during the validation phase of the project. Both a.m. and p.m. peak hour volumes are adjusted by separate files both containing intersection volume differences for both peak hours. The user executes this interface within the MONITOR software. While the volumes are being transferred from the TRANPLAN software to the MONITOR package electronically, the volumes are also being adjusted based on the volume difference files. Once adjusted, the MONITOR software stores the intersection volumes within the intersection database in the MONITOR package.

Also including in the MONITOR program is a intersection capacity analysis program known as LOSSYS, which is an intersection capacity analysis program for running capacity analysis for several intersections at a time. This performs the intersection capacity analysis based on stop delay methodology as contained in the 1985 Highway Capacity Manual. LOSSYS also performs Intersection Capacity Utilization (ICU) analysis for all intersections. Intersection capacity analysis was performed on all study intersections for this project within the City of Colton for a.m. and p.m. peak hours for both the with and without circulation element scenarios. The existing intersection delay Level of Service and ICU values for the selected study intersections during a.m. and p.m. peak hours are shown in Appendix "E". The resulting 2010 delay Level of Service and ICU values for the study intersections for both scenarios during a.m. and p.m peak hours are shown in Appendix "F".

Appendix "G" contains output from the MONITOR program for both a.m. and p.m. peak hours for both without and with circulation element scenarios. Also contained in Appendix "G" is a description of the MONITOR program in addition to a brief explanation of delay Level of Service per the 1985 Highway Capacity Manual.

ARTERIAL CAPACITY ANALYSIS

In addition to capacity analysis for study intersections, capacity analysis was performed for arterials as well. The arterial Level of Service analysis was performed along sections of major arterials and freeways within the City of Colton. The methodology used for the arterial capacity analysis is the same methodology used in the San Bernardino County Congestion Management Plan (CMP). This methodology was first developed by the State of Florida Department of Transportation.

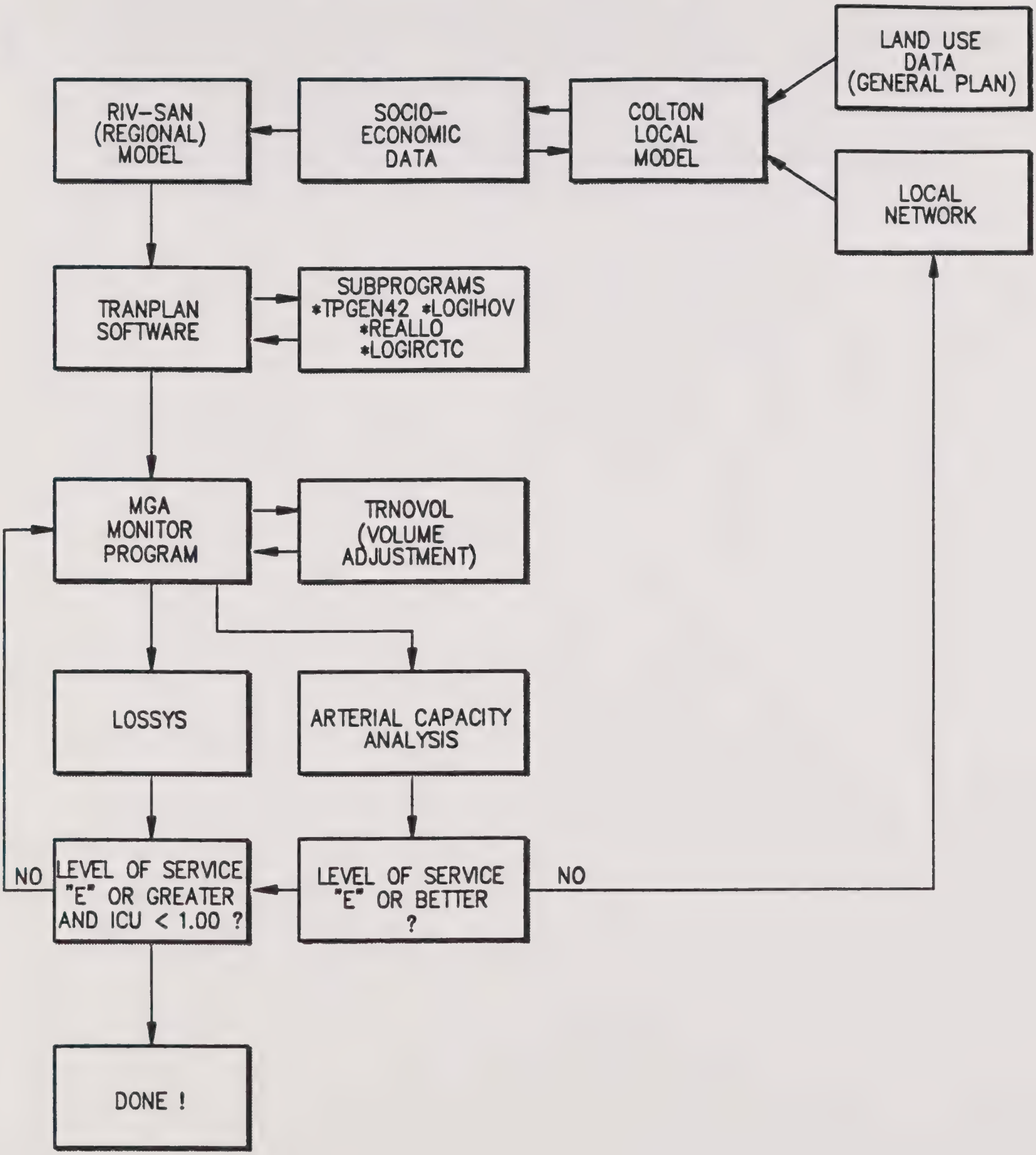
Appendix "H" contains a table developed by the Florida Department of Transportation which shows how arterial Levels of Service are determined. As shown on the table, arterial capacity analysis methodology is based on the peak hour/peak directional flow along the given stretch of the facility. This peak hour/peak directional flow is then adjusted depending on if it is a two-lane or a multi-lane facility and if the facility is divided or undivided. This adjusted volume, along with the number of signalized intersections per mile and the numbers of lanes of the arterial section, is subsequently used to determine the peak hour Level of Service for the given stretch of the arterial. For the freeway Level of Service computations, the adjusted volume along with the population of the greater area in which the freeway is located and the numbers of lanes of the freeway is used to determine the Level of Service of the freeway segment.

Appendix "H" contains the arterial Level of Service output sheets which is based on the Florida methodology for the without and with circulation element scenarios. The Year 2010 a.m. peak hour/peak directional adjusted volumes and Levels of Service for the arterial segments are shown in the fourth-to-last and third-to-last, respectively, columns on the table. The Year 2010 p.m. peak hour/peak directional adjusted traffic volumes and corresponding Levels of Service are shown on the second-to-last and last columns, respectively, of the table.

RECOMMENDATION OF CIRCULATION PLAN

The recommendation of the final circulation plan of the circulation element involved a trial and error process. This process involved testing many scenarios for Year 2010 in terms of the highway system of the greater Colton vicinity.

Various scenarios tested included street widenings, intersection improvements, and the testing of proposed street extensions. During the process of testing each scenario, capacity analysis on both the study intersections and study arterials was necessary. All intersections are required to operate at a Level of Service of "E" or better and an ICU of below 1.00. The study arterials were required to operate at Level of Service of "E" or better as well. The capacities for the Colton model are determined by the numbers of lanes of all arterials. In reality, the intersections govern the capacity of arterials. However, the TRANPLAN software currently does not contain traffic assignment algorithms which determine street capacity from the adjacent intersection capacities. Arterial Level of Service analysis was conducted before the intersection Level of Service analysis for each Year 2010 scenario tested. If during a scenario any of the study arterials failed to operate at Level of Service "E" or better, the arterial was given more lanes and the Year 2010 model was rerun. Once all the study arterials operated at a Level of Service of "E" or better, the intersection capacity analysis was subsequently performed. If any of the study intersections failed to operate at a Level of Service of "E" or better and/or above a ICU value of 1.00, the study intersection was mitigated by providing more approach lanes, altering the intersection's phasing sequence or adjusting the intersection's cycle length by trial and error procedures until all intersections operated adequately. Once it was determined that all study arterials and study intersections justified the Level of Service criteria of "E" or better and ICU of below 1.00, a final circulation plan was recommended. The flow chart entitled "Colton Traffic Modeling Process" on the following page diagrammatically shows the trial and error process involved in the testing the various circulation scenarios used in devising the final recommended circulation plan.



mga

COLTON TRAFFIC MODELLING PROCESS

COLTTMP.DWG

Figures 2A - 2E of the Circulation Element contain the final recommended circulation plan. Figures 2A and 2B show the functional classifications of the recommended circulation plan. Figures 2C - 2E show the typical street cross sections for all major facilities classified as arterials or collectors within the City of Colton. The typical street cross sections of these facilities shown on Figure 2E are deemed necessary in order to provide adequate capacity for the anticipated Year 2010 infrastructure demand for the City of Colton. These recommended typical street cross sections will fit within the existing rights of way for all the respective facilities requiring improvements. Therefore, right of way acquisition is not expected to be necessary.

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MITIGATION MONITORING PROGRAM

CITY OF COLTON CIRCUALTION ELEMENT

ENVIRONMENTAL IMPACT REPORT

MITIGATION MONITORING AND REPORTING PROGRAM

Project Applicant

CITY OF COLTON
650 North La Cadena Drive
Colton, California 92415

Lead Agency

CITY OF COLTON
Community Development Department Planning Division
650 North La Cadena Drive
Colton, California 92415
Contact: Mr. Hani Gabriel
909-370-5079

Prepared by:

CHAMBERS GROUP, INC.
4324 Latham Street Suite 140
Riverside, California 92501
909-276-8344

February 1993

A. INTRODUCTION

The program outlined herein pertains only to the City of Colton Circulation Element of the General Plan. This program may be modified in the future to be compatible with any city monitoring program. The mitigation monitoring program focuses on implementation of the mitigation measures contained in the Environmental Impact Report and which are adopted through inclusion in the conditions of approval. There may be other conditions of approval of a general nature, or which are related to an existing regulation, or which pertain specifically to zoning which are not specifically included in this monitoring program. These conditions are implemented through existing procedures.

B. PURPOSE

This mitigation monitoring program has been prepared for the City of Colton Circulation Element in order to comply with Public Resources Code Section 21081.6 which came into affect January 1, 1989. The code requires a Lead Agency to develop and adopt a monitoring program when approving projects that require an Environmental Impact Report or Negative Declaration in order to mitigate significant environmental impacts associated with the proposed project. This mitigation monitoring program is intended to provide verification that all applicable Conditions of Approval relative to significant environmental impacts are monitored and reported.

C. PROJECT DESCRIPTION

The purpose of the Colton Circulation Element, as stated within the draft element, is as follows:

> The purpose of the Circulation Plan is to provide for the safe, convenient and efficient circulation system for the City. In order to meet this objective, the Circulation Element has been designed to accommodate the anticipated transportation needs based on the estimated intensities of various land uses within the region. This element describes the extent of physical improvements needed to accommodate anticipated population growth and also introduces other techniques (e.g., restricted street parking, transportation system management plans and congestion management plans) which can be used to improve and maintain an acceptable Level of Service for the City's circulation system.
>
> The element is also intended to serve as a basic plan for other infrastructure systems such as sewer lines. As the State's General Plan Guidelines indicate, the Circulation Element is actually an infrastructure plan which "concerns itself withthe circulation of people, goods, energy, water, sewage, storm drainage and communications."

In order to satisfy the purpose statement above, the Circulation Element was divided into three components:

- Goals and policies.

- Existing conditions and future standards, including required roadway and intersection improvements, and mass transit.

- Implementation program.

The infrastructural components of the Circulation Element, such as sewer, water, energy, storm drains, and communications, will reference existing, approved plans and policies. This element will not propose changes to these existing plans.

D. GENERAL REQUIREMENTS

Monitoring Personnel

The Community Development Director shall assign staff to coordinate the monitoring program for the City of Colton Circulation Element. Designated staff shall have the responsibility of insuring that monitoring is taking place as prescribed and that documentation is included in the project file. Designated staff shall secure the services of specified consultants to monitor the various aspects of the project as provided herein. The minimum qualifications of such consultants are given for specific measures.

Once a monitor has been qualified to monitor a specific aspect of the project, he or she will only be replaced upon authorization of the Community Development Director. Designated staff shall review the qualifications of all monitors provided by an applicant insure they are satisfactory. Designated staff shall be responsible for preparation of monitoring program quarterly reports.

The City's staff monitor and other monitors shall have full access to the subject property at any time during normal construction, business or operating hours.

Quarterly Reporting Requirements

The staff project monitor will prepare a detailed summary of monitoring progress on a quarterly basis through project completion or as long as mitigation is required. Quarterly reports will be submitted to the Community Development Director for review four times annually on the following dates:

- January 15th
- April 15th
- July 15th
- October 15th

The quarterly reports shall include copies of the signed mitigation checklists and narrative description of monitoring activities conducted since the previous report. At the Community Development Director's discretion, a follow-up meeting with project developers will be called to review monitoring requirements and verify procedures. If additional mitigation or monitoring requirements are necessary, the item shall be taken to the Planning Commission at the first available regularly scheduled meeting. The quarterly reports will serve as the bases of discussion at the Planning Commission.

Performance Requirements

The applicant shall post a cash bond in the amount fixed by the Community Development Director guaranteeing satisfactory completion and monitoring of all mitigation measures.

Prior to release of occupancy or at the completion of all monitoring requirements, the Community Development Director or his design shall issue a certification of compliance with approved mitigation measures.

E. SPECIFIC MITIGATION MONITORING REQUIREMENTS

The monitoring program contains the following elements:

1. The conditions of approval that act as impact mitigation measures are recorded with the action and procedure necessary used to verify implementation of several conditions of approval, such as grading plan review and erosion control plan review.

2. A procedure for compliance and verification has been outlined for each action necessary. This procedure designates who will take action, what action will be taken and when, and to whom and when compliance will be reported.

3. The program contains a separate Mitigation Monitoring and Compliance Record for each action. On each of these record sheets, the pertinent actions and dates will be logged, and copies of permits, correspondence or other relevant data will be attached. Copes of the records will be submitted to the City's Department of Planning.

4. The program has been designed to be flexible. As monitoring progresses, changes to compliance procedures may be necessary based upon recommendations by those responsible for the program. As changes are made, new monitoring compliance procedures and records will be developed and incorporated into the program.

Specific monitoring requirements for each mitigation is included in the tables which follow.

MITIGATION MONITORING PROGRAM
CITY OF COLTON CIRCULATION ELEMENT

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
EARTH RESOURCES			
1. All site specific projects will obtain the necessary grading permits.	Prior to final approval of a site specific project, a grading plan shall be prepared by a State of California registered engineer, submitted to the Department of Public Works for review and approval and a grading permit obtained.	**City of Colton Department of Public Works** __________ Signature __________ Date	
2. An erosion control plan will be prepared for each site specific project, and will be reviewed and approved prior to issuance of a grading permit for any portion of the project.	Prior to the issuance of a grading permit for any portion of a project site the applicant shall submit to the Department of Public works an erosion control plan for review and approval for each site specific project.	**City of Colton Department of Public Works** __________ Signature __________ Date	
3. Any project impacting 5 acres of land will be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit.	The applicant is to file a Notice of Intent with the Regional Board of the San Bernardino County Flood Control District and provide a copy to the City of Colton Department of Public Works prior to the issuance of a grading permit, building plan or certificate of occupancy for a project.	**City of Colton Department of Public Works** __________ Signature __________ Date	

MITIGATION MONITORING PROGRAM
CITY OF COLTON CIRCULATION ELEMENT

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
HYDROLOGY AND DRAINAGE			
4. Runoff control measures shall be utilized where necessary to maximize the control of runoff during construction including; temporary seeding, mulching and vegetative buffer strips.	A preconstruction inspection is required by the Department of Public Works to verify requirements for erosion control. Erosion control plans shall be prepared by the project's proponent and submitted to the Department of Public Works for review and approval prior to construction of roadway improvements.	**City of Colton** **Community Development Department - Building and Safety** Signature Date	
5. The City will comply with state and federal permitting programs for roadway or bridge improvements that involve alterations of streambeds or impact on waters of the United States. Further environmental assessment may be necessary prior to obtaining these permits.	The City of Colton will apply for and obtain, if deemed necessary through the environmental process, a 1601 and/or 1603 permit from the California Department of Fish and Game and/or a 404 permit from the U.S. Army Corps of Engineers. These permits if necessary shall be applied for early in the developmental process after environmental documentation is complete.	**City of Colton** **Department of Public Works** Signature Date **Community Development Department** Signature Date	

MITIGATION MONITORING PROGRAM
CITY OF COLTON CIRCULATION ELEMENT

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
HYDROLOGY AND DRAINAGE - (Continued)			
6. All flood control improvements will be reviewed and approved by the San Bernardino County Flood Control District.	For each flood control improvement project that is proposed, the project proponent shall submit flood control improvement plans to the County of San Bernardino Flood Control District for review and approval. Verification in writing of the Flood Control District approval shall be provided to the City of Colton Department of Public Works.	**City of Colton** **Department of Public Works - Engineering** __________ Signature __________ Date	
PUBLIC SERVICES AND UTILITIES			
7. All impacted utilities will be contacted for coordination purposes prior to construction of all circulation infrastructure.	The City of Colton Public Works Department will be responsible for contacting in writing the affected utility companies prior to the construction permits of any roadway improvements. A copy of all correspondence and responses will be maintained in a project file by the Department of Public Works for each individual roadway project.	**City of Colton** **Department of Public Works - Engineering** __________ Signature __________ Date	

MITIGATION MONITORING PROGRAM
CITY OF COLTON CIRCULATION ELEMENT

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
PUBLIC SERVICES AND UTILITIES-(Continued)			
8. The police and fire departments will be notified of any proposed land closures or detours of traffic.	The City of Colton Public Works Department shall notify and coordinate with the City Police and Fire departments of any planned land closures and/or road closures or detours prior to the commencement of construction on roadway, utility, and/or development projects.	**City of Colton Department of Public Works - Engineering** ____________________ Signature ____________ Date	

MITIGATION MONITORING PROGRAM
CITY OF COLTON CIRCULATION ELEMENT

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
PUBLIC SERVICES AND UTLITIES-(Continued)			
9. If above ground utilities require relocation, these utilities will be placed underground in accordance with City policy.	Roadway improvement plans shall indicate whether utilities are to be relocated and shall stipulate that replacement utilities will be located underground. Roadway improvement plans shall be reviewed and approved by the City of Colton Department of Public Works prior to the commencement of construction.	**City of Colton Department of Public Works - Engineering** Signature Date	
10. Roadway median and right-of-way landscaping shall utilize reclaimed water as it becomes available.	Landscaping plans for median and right-of-way landscaping shall incorporate provisions for the use of reclaimed water. Landscaping plans shall be submitted by the applicant to the City of Colton Department of Public Works for review and approval prior to the issuance of building or construction permits.	**City of Colton Department of Public Works** Signature Date	

MITIGATION MONITORING PROGRAM
CITY OF COLTON CIRCULATION ELEMENT

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
BIOLOGICAL RESOURCES			
11. Prior to issuance of grading permits and prior to any physical disturbance of any natural drainage course, Blue Line Stream or any wetland determined to contain riparian vegetation, that City (or applicable applicant) will obtain a Streambed Alteration agreement or permit, or a written waiver of the requirement for such a permit or agreement from both the California Department of Fish and Game and the U.S. Army Corps of Engineers. Written verification of such a permit or waiver shall be kept on file with the City of Colton Department of Public Works. Site specific biological studies may be necessary prior to disturbing the project site in order to obtain the above waivers/permits.	The Planning Department shall determine through the environmental process whether a site specific biological study is necessary for a roadway or infrastructure project. The biological study shall be prepared at the applicant's expense and submitted to the Planning Department for review and acceptance prior to the issuance of grading permits for a project. If necessary the applicable applicant shall obtain, at the applicant's expense, a Streambed Alteration agreement, permit or written waiver from both the California Department of Fish and Game and the U.S. Army Corps of Engineers. Written verification of such an agreement shall be submitted to the Public Work's Department and kept on file.	**City of Colton Community Development Department - Planning** __________________ Signature ____________ Date **Department of Public Works - Engineering** __________________ Signature ____________ Date	

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
CULTURAL RESOURCES			
12. If archaeological, paleontological or historic resources are uncovered during excavation or construction activities at the project site, work in the affected area will cease immediately and a qualified person with appropriate expertise shall be consulted by the applicant regarding mitigation measures to preserve or record the find. Recommendations by the consultant shall be implemented as deemed necessary and feasible by the Community Development Director before work commences in the affected area. If human remains are discovered, work in the affected area shall cease immediately and the County Coroner shall be notified. If it is determined that the remains might be those of a Native American, the California Native American Heritage Commission shall be notified and appropriate measures provided by State law shall be implemented.	A qualified achaeologist shall be contacted and retained at the applicant's or City's expense (if a City funded project) in the event that any undetected buried cultural resources are encountered during construction. Construction operations shall be redirected until the significance of any discovered cultural resource can be determined. Recommendations by the consultant (archaeologist) shall be implemented as deemed necessary and feasible by the Community Development Director before work commences in the affected area. If human remains are discovered, work in the affected area shall cease immediately and the County Coroner shall be notified by the City's Building and Safety Department. If it is determined that the remains might be those of a Native American, the California Native American Heritage Commission shall be notified by the City and appropriate measures provided by State law shall be implemented.	**City of Colton** **Community Development Department-Planning** __________ Signature __________ Date __________ **Community Development Director** __________ Date	

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
CIRCULATION/TRANSPORTATION			
13. Analyze peak-hour intersection LOS and ICU levels for each proposed project that will impact the intersection of Washington Street at Reche Canyon Road/Hunts Lane. Projects shown to impact this intersection shall take additional measures to reduce trip generation, such as increased car pooling requirements, off-peak work schedules for employees, reduced densities, etc. Mitigation measures shall be included in the project traffic study, and shall demonstrate a percentage reduction in traffic congestion based on that project's contribution to total future demand at that intersection.	The City's Engineering Department shall require that a traffic study be prepared for each proposed project that may impact the intersection of Washington Street at Reche Canyon Road/Hunts Lane. For those project's that will exceed LOS and ICU levels as determined by the City Engineer mitigation shall be proposed in the traffic study to reduce traffic congestion. Analysis of the intersections and traffic study shall be done at the applicant's expense and prior to the final approval of the project.	**City of Colton Department pf Public Works-Engineering** __________ Signature __________ Date __________ **City Engineer** __________ Date	

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
CIRCULATION/TRANSPORTATION (Continued)			
14. Require that new development maintain consistency with the adopted circulation plan.	The City of Colton's Public Works Department shall review and approve all roadway improvement plans for consistency with the City of Colton General Plan Circulation Element. It shall be noted and dated in the project file by the City Engineer that the proposed improvements are consistent with the City's General Plan.	**City of Colton** **Department of Public Works** __________________ **City Engineer** __________ Date	
15. The City shall coordinate with OMNITRANS prior to approval of any discretionary approval to determine if a bus turnout or stop is needed at the project site.	The City's Planning Department shall forward all discretionary permit site plans to OMNITRANS prior to approval of the project by the approving body ie. Planning Commission, to determine whether a bus turnout or stop is necessary. Coordination shall be done in writing and a copy of the correspondance shall be maintained in the project file. Coordination shall be done early in the planning process so that site plans can be revised prior to final approval of the project.	**City of Colton** **Communtiy Development Department - Planning** __________________ Signature __________ Date	

MITIGATION MONITORING PROGRAM
CITY OF COLTON CIRCULATION ELEMENT

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
AIR QUALITY			
16. Use low emissions mobile and stationary equipment during construction. 17. Maintain construction equipment in tune as per manufacturers' specifications. 18. Utilize catalytic converters on gasoline-powered equipment. 19. Retard engine timing by 2 degrees. 20. Use reformulated, low-emissions diesel fuel. 21. Substitute electric and gasoline-powered equipment for diesel-powered equipment where feasible. 22. Utilize existing power sources (i.e., power poles) or clean fuel generators rather than temporary power generators. 23. Where applicable, equipment and vehicles should not be left idling for prolonged periods. 24. Curtail (cease or reduce) construction during periods of high ambient pollutant concentrations (i.e., stage I smog alerts). 25. Reduce the daily operation by reducing the number of pieces of equipment and haul trucks. This can be accomplished by lengthening a given project's time schedule. 26. Develop a trip reduction plan to achieve 1.5 persons per vehicle for construction employees. 27. Provide a flag person to guide traffic efficiently and ensure safety at construction sites.	Source emissions reduction plan shall be prepared by the applicant for implementation during construction. The plan shall contain mitigation measures that are deemed feasible by the City's Building and Safety Department. The plan shall be paid for by the applicant and implemented by the construction company. Monitoring for compliance shall be the responsibility of the Building and Safety Department and shall take place during on-going field inspections during construction.	**City of Colton** **Communtiy Development Department - Building and Safety** ________________ Signature __________ Date	

MITIGATION MONITORING PROGRAM
CITY OF COLTON CIRCULATION ELEMENT

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
AIR QUALITY - (Continued)			
28. Develop a traffic plan to minimize traffic flow interference from construction activities. This plan may include such items as advance public notice of routing, use of public transportation, and satellite parking areas with shuttle service. 29. Schedule materials haul trips during off-peak hours. 30. Minimize obstruction of through lanes from haul trucks.	Source emissions reduction plan shall be prepared by the applicant for implementation during construction. The plan shall contain mitigation measures that are deemed feasible by the City's Building and Safety Department. The plan shall be paid for by the applicant and implemented by the construction company. Monitoring for compliance shall be the responsibility of the Building and Safety Department and shall take place during on-going field inspections during construction.	**City of Colton** **Communtiy Development Department - Building and Safety** ________________ Signature __________ Date	
<u>Dust Emissions</u> 31. Water construction sites and clean the equipment morning and evening. 32. Spread soil binders on the construction site, unpaved roads, and parking areas morning and evenings. 33. Apply SCAQMD approved chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (i.e., previously graded areas which are to remain inactive for 96 hours or more). 34. If applicable, establish ground cover on construction sites through seeding and watering. 35. Pave construction roads and sweep streets if silt is carried over to adjacent public thoroughfares. 36. Reduce traffic speeds to less than 15 mph on all unpaved surfaces. 37. Wash off trucks leaving site. 38. Suspend all grading activities when wind speeds	Implementation of the mitigation measures is the responsibility of the applicant and applicant's construction company. Monitoring for compliance shall be the responsibility of the Building and Safety Department and shall take place during on-going field inspections during construction.	**City of Colton** **Communtiy Development Department - Building and Safety** ________________ Signature __________ Date ________________ **Construction Supervisor** __________ Date	

MITIGATION MONITORING PROGRAM
CITY OF COLTON CIRCULATION ELEMENT

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
AIR QUALITY - (Continued)			
<u>Asphalt Emissions</u> 39. Where feasible, utilize emulsified asphalt or asphaltic cement. The use of cutback asphalt should be avoided whenever possible.	Implementation of this mitigation is the responsibility of the construction company and shall occur during the construction phases of a project. The applicant is responsible for any costs that may occur as a result of compliance. The City of Colton Department of Building and Safety shall be responsible for monitoring compliance through on-going field inspections during construction.	**City of Colton** **Community Development Department-Building and Safety** ________________ Signature ____________ Date	
<u>Operations</u> 40. Ensure efficient parking management. 41. Encourage employers to provide dedicated parking spaces with electrical outlets for electric vehicles. 42. Require the installation of electrical outlets in residential garages for the proliferation of electric vehicles. 43. Establish peripheral park-n-ride lots. 44. Where applicable, provide preferential parking to high occupancy vehicles and shuttle services. 45. Configure parking areas to minimize traffic interference by providing adequate ingress and egress. 46. Charge parking lot fees to low occupancy vehicles.	To be implemented by the City of Colton Planning Department during the development review process prior to the final approval of a project to assure that development proposals concur with the mitigation.	**City of Colton** **Community Development Department-Planning** ________________ Signature ____________ Date	

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
AIR QUALITY - (Continued)			
Operations - Continued 47. Promote Transportation Management Associations (TMSs). 48. (Deleted) 49. Encourage employers to establish telecommuting programs, alternate work schedules, and satellite work centers. 50. Work with developers/citizens in the region to implement TDM goals.	The City of Colton Planning Department is responsible for implementing these mitigation measures prior to the final approval of a project.	**City of Colton** **Community Development Department-Planning** ____________________ Signature _______________ Date	
51. Continue to monitor traffic patterns and upgrade the circulation system as appropriate.	The City's Engineering Department shall monitor circulation patterns within the City and recommend improvements and upgrades where appropriate. This is an on-going process.	**City of Colton** **Department of Public Works - Engineering** ____________________ Signature _______________ Date	

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
AIR QUALITY - (Continued)			
<u>Operations - Continued</u> 52. Require development practices which maximize energy conservation as a prerequisite to permit approval. 53. Require the improvement of the thermal integrity of buildings and reduce the thermal load with automated time clocks and/or occupant sensors. 54. Require the utilization of window glazing, wall insulation, and efficient ventilation methods. 55. Require the utilization of energy efficient heating, air conditioning, water heaters, furnaces, boiler units, etc. 56. Where appropriate encourage the incorporation of passive solar design and solar heaters. 57. (Deleted) 58. (Deleted)	Prior to the issuance of building permits, the City's Building Department shall review development building plans for compliance with the mitigation.	**City of Colton** **Community Development Department-** **Building and Safety** ________________ Signature ____________ Date	
59. Landscape with native drought-resistant species to reduce water consumption and provide passive solar benefits.	Prior to the issuance of building permits, the City's Planning Department shall review all landscaping plans for consistency with the mitigation.	**City of Colton** **Community Development Department-** **Planning** ________________ Signature ____________ Date	

MITIGATION MONITORING PROGRAM
CITY OF COLTON CIRCULATION ELEMENT

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
NOISE			
60. Prohibit construction from 7 P.M. to 7 A.M. (8 P.M. to 9 A.M. on weekends and holidays), and may also establish exposure limits from mobile and stationary construction activity noise sources during times of allowed operations.	Applicable during construction, building plans shall indicate in writing the limitation of construction hours and a copy of those building plans shall be maintained on the construction site by the construction supervisor. Adherence to the restriction in construction hours is the responsibility of the construction company and shall be monitored by the Building and Safety Department in conjunction with periodic site inspections.	**City of Colton Community Development Department- Building and Safety** __________ Signature __________ Date __________ **Construction Supervisor** __________ Date	

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
NOISE - (Continued)			
61. All construction equipment should utilize properly working mufflers and be kept in a proper state of tune to alleviate backfires.	Applicable during construction, building plans shall indicate in writing and a copy of those building plans shall be maintained on the construction site by the construction supervisor. Adherence to the use of properly maintained construction equipment mufflers is the responsibility of the construction company and shall be monitored by the Building and Safety Department in conjunction with periodic site inspections.	**City of Colton Community Development Department-Building and Safety** __________ Signature __________ Date __________ **Construction Supervisor** __________ Date	

MITIGATION MONITORING PROGRAM
CITY OF COLTON CIRCULATION ELEMENT

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
NOISE			
62. Where possible, stationary equipment such as generators, should be equipped with noise shrouds and placed as far as possible from sensitive receptor locations.	Applicable during construction, building plans shall indicate in writing that in sensitive noise receptor areas construction equipment shall be equiped with noise shrouds and located as far away from the sensitive noise recptors as possible. A copy of those building plans shall be maintained on the construction site by the construction supervisor. Adherence to the use of noise shrouds and location of stationary equipment away from sensitive receptors is the responsibility of the construction company and shall be monitored by the Building and Safety Department in conjunction with periodic site inspections.	**City of Colton** **Community Development Department-Building and Safety** __________ Signature __________ Date __________ **Construction Supervisor** __________ Date	
63. When working within sensitive areas, portable noise barriers should be utilized to reduce produced noise to the extent feasible.	Applicable during construction, building plans shall indicate in writing that in sensitive noise receptor areas portable noise barriers shall be used. A copy of those building plans shall be maintained on the construction site by the construction supervisor. Adherence to the use of noise barriers in areas that contain sensitive noise receptors is the responsibility of the construction company and shall be monitored by the Building and Safety Department in conjunction with periodic site inspections.	**City of Colton** **Community Development Department-Building and Safety** __________ Signature __________ Date __________ **Construction Supervisor** __________ Date	

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
NOISE - (Continued)			
Project Implementation 64. Increased building setback (with noise abatement aided by placing parking between the structures and the road). For commercial applications, parked vehicles can add a modicum of noise attenuation. Facilities planning rear and/or side parking may be required to provide additional noise attenuation for vehicle-generated road noise. 65. Berms and soundwalls placed between the structures and the roads.	The City of Colton Planning Department shall review all site plans for consistency with these mitigation measures prior to the approval of a project. Project consistency with the mitigation shall be noted in writing and maintained in the project file. Consistency determination shall be made as early as possible in the planning process.	**City of Colton Community Development Department-Planning** ________________ Signature ________________ Date	
66. A decrease in the local speed limits and limiting the heavy trucks to non-rush hour traffic.	The City of Colton Public Works Department in conjunction with the City's Police Department shall determine appropriate speed limits and the limitation of heavy trucks to non-rush hour traffic for all roadways within the City's jurisdiction. This is an on-going process.	**City of Colton Department of Public Works-Engineering** ________________ Signature ________________ Date **Police Department** ________________ Signature ________________ Date	

MITIGATION MONITORING PROGRAM
CITY OF COLTON CIRCULATION ELEMENT

Mitigation Measures	Implementation and Monitoring Criteria	Verification and Compliance	Remarks
NOISE - (Continued)			
Project Implementation (continued) 67. The roof system should have as a minimum 1/2" plywood sheeting (or equivalent) which is well fitted and caulked. Insulation with a rating of at least R-19 should be placed in attic spaces as applicable. The ceiling should also be well fitted, well sealed gypsum board of at least 1/2" thick (or equivalent).	Prior to the issuance of building permits, all building plans for residential, office, and commercial buildings shall be reviewed and approved by the Building and Safety Department to assure consistency with this mitigation. Adherence to this requirement is the responsibility of the builder and shall be monitored by the Building and Safety Department in conjunction with periodic site inspections.	**City of Colton** **Community Development Department-Building and Safety** ____________ Signature ________ Date	
68. Fireplaces and exhaust stacks, if utilized should be provided with well fitted dampers. Chimneys shall be topped with a metal cap to eliminate any line-of-sight aircraft noise.	Prior to the issuance of building permits, all building plans for residential, office, and commercial buildings shall be reviewed and approved by the Building and Safety Department to assure consistency with this mitigation. Adherence to this requirement is the responsibility of the builder and shall be monitored by the Building and Safety Department in conjunction with periodic site inspections.	**City of Colton** **Community Development Department-Building and Safety** ____________ Signature ________ Date	
69. In consistency with the General Plan, impacted noise zones will be restricted to non-residential/non-noise sensitive receptor uses. Prohibited uses include (but are not limited to) residential dwellings, schools, rest homes, and hospitals.	The City of Colton Planning Department shall review all projects including general plan amendments for consistency with this mitigation prior to the approval of said project.	**City of Colton** **Community Development Department-Planning** ____________ Signature ________ Date	

FINAL EIR

CITY OF COLTON

CIRCULATION ELEMENT UPDATE

FINAL ENVIRONMENTAL IMPACT REPORT

State Clearinghouse No. 92062095

Prepared for:

CITY OF COLTON
Community Development Department
Planning Division
650 North La Cadena Drive
Colton, California 92324
(714) 370-5079

Prepared by:

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4324 Latham Street, Suite 140
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FEBRUARY 1993

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LIST OF FIGURES

PART I - INTRODUCTORY COMMENTS ON FINAL EIR

I.1 CEQA COMPLIANCE

The Final Environmental Impact Report (EIR) for the City of Colton Circulation Element (State Clearinghouse No. 92062095) has been prepared in accordance with the California Environmental Quality Act (CEQA) and the guidelines for the implementation of CEQA.

Section 15132 of the CEQA Guidelines requires that a Final EIR contain the following information:

(a) The Draft EIR or a revision of the draft.

(b) Comments and recommendations received on the Draft EIR either verbatim or in summary.

(c) A list of persons, organizations, and public agencies commenting on the Draft EIR.

(d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.

(e) Any other information added by the Lead Agency.

I.2 FINAL EIR FORMAT AND ORGANIZATION

The Final EIR is comprised of four sections that meet the requirements of the CEQA guidelines as outlined above. Section I outlines the contents and organization of the Final EIR. Section II describes the public review conducted for the Draft EIR and provides a list of persons, organizations, or public agencies that commented on the Draft EIR. Section III contains all of the comments received on the Draft EIR. Each comment received was reviewed by the City and the EIR consultant, and a response was prepared and included in this section to address each comment. The last section in the Final EIR, Section IV, contains a set of minor changes to the Draft EIR. The changes in this section are the result of staff and public review, and are meant to provide clarification of the analyses and mitigations within the Draft EIR. The changes within this section were not found to be substantial changes to the Draft EIR by the lead agency, and therefore, no recirculation of the Draft EIR is warranted.

In addition to the four sections described above, the Final EIR also contains a copy of the October 1992 Draft EIR immediately following Section IV. In reference to Section 15132 (a) above, this Draft EIR has been incorporated by reference into the Final EIR.

State Clearinghouse
Attention: Michael Chiriatti
December 10, 1992
Page 2

If you have any questions, please contact La Keda Johnson at (714) 383-5929 or FAX (714) 383-5936.

Harvey J. Sawyer

HARVEY J. SAWYER, Chief
Transportation Planning
San Bernardino Coordination
Branch

LKJ:sp

bcc: Ron Helgeson, Plan Coord Unit, DOTP

Response to the Department of Transportation, District 8

2-1. The City of Colton Circulation Element does not create additional traffic demand, the document only provides a plan for the most efficient circulation system which serves the land uses projected by the City's existing General Plan.

2-2. This funding issue regarding the payment of a land use development's fair share for the improvements of regional facilities is more appropriately addressed in other elements of the City's General Plan.

2-3. This right-of-way preservation issue is more appropriately addressed in other elements of the City's General Plan (i.e., the Land Use Element).

State of California

Business, Transportation and Housing Agency

Memorandum

To : State Clearinghouse
Office of Planning & Research
1400 10th Street
Sacramento, CA 95814

Attention: Michael Chiriatti

Date : December 10, 1992

File No.: 08-SBd-10-Var

SCH# 92062095

From : DEPARTMENT OF TRANSPORTATION
District 8

Subject : Negative Declaration for the City of Colton Circulation Element

We have reviewed the above-referenced document and request consideration of the following comments:

2-1

- Given the amount of proposed new development in the City of Colton (page 5), there is a significant potential for traffic impacts on Interstates 10 and 215. The traffic analysis should be amended to include the direct and cumulative impacts from new developments on the freeway system, as well as any improvements needed to mitigate the impacts.

2-2

- New development must pay its fair share to correct the degradation in the Level of Service it creates. In view of the fact that there are limited funds available for infrastructure improvements, we recommend that the City take the lead in developing a fair-share mechanism in which each project can fund improvements for the decrease in the Level of Service for which it is responsible.

2-3

- The ultimate plan for Interstates 10 and 215 in the City of Colton is a ten-lane freeway. The circulation element should include policies and procedures to preserve the needed right of way for future expansion.

- When available, please send the amended Circulation Element to:

  La Keda Johnson
  Transportation Planning, CEQA/IGR
  California Department of Transportation
  P.O. Box 231
  San Bernardino, CA 92402

12-17

Response to the Govenor's Office of Planning and Research

1-1. No response is necessary since this letter only acknowledges the receipt of the Draft EIR, and does not raise any significant environmental points of discussion.

STATE OF CALIFORNIA PETE WILSON, *Governor*

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814

RECEIVED
DEC 2 2 1992
Community Development Dept

Dec 17, 1992

HANI GABRIEL
CITY OF COLTON
650 NORTH LA CADENA DRIVE
COLTON, CA 92501

Subject: CIRCULATION ELEMENT
SCH # 92062095

Dear HANI GABRIEL:

1-1 The State Clearinghouse has submitted the above named draft Environmental Impact Report (EIR) to selected state agencies for review. The review period is now closed and the comments from the responding agency(ies) is(are) enclosed. On the enclosed Notice of Completion form you will note that the Clearinghouse has checked the agencies that have commented. Please review the Notice of Completion to ensure that your comment package is complete. If the comment package is not in order, please notify the State Clearinghouse immediately. Remember to refer to the project's eight-digit State Clearinghouse number so that we may respond promptly.

Please note that Section 21104 of the California Public Resources Code required that:

> "a responsible agency or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency."

Commenting agencies are also required by this section to support their comments with specific documentation. These comments are forwarded for your use in preparing your final EIR. Should you need more information or clarification, we recommend that you contact the commenting agency(ies).

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact Russell Colliau at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Christine Kinne

Christine Kinne
Acting Deputy Director, Permit Assistance

Enclosures

cc: Resources Agency

PART III - DRAFT EIR COMMENTS AND RESPONSES

The comments on the Draft EIR and individual responses to each are included in this section. The primary objective and purpose of the EIR public review process is to obtain comments on the adequacy of the analysis of environmental impacts, the mitigation measures presented, and other analyses contained in the EIR. The majority of the comments received during the Draft EIR review related solely to the contents of the Circulation Element, and did not raise significant issues relative to the adequacy of the Draft EIR. Since these comments do not raise issues with the EIR, CEQA does not require a response in the Final EIR, but in the interest of clearing any questions raised by the public concerning the Circulation Element, and providing the decision makers with a clear view of the issues, all comments were responded to in this section. Responses relative to comments on the Circulation Element were prepared by the City's Circulation Element consultant, Mohle, Grover and Associates.

The comments letters have been arranged into groups by respondent as shown on Table II-1. Aside from the courtesy statements, introductions, and closings, the text of each letter has been divided into individual comments. Brackets and identification numbers in the left margin of each letter delineate each comment. The document has been arranged so that the comment letter will appear on the left side of the document when opened (i.e., the even numbered pages), with the associated responses following on the right side of the document (i.e., the odd numbered pages).

Table II-1

AGENCIES, ORGANIZATIONS, AND PERSONS RESPONDING TO THE DRAFT EIR

STATE & REGIONAL AGENCIES	1) Govenor's Office of Planning and Research Christine Kinne, Acting Deputy Director, Permit Assistance 2) State of California, Department of Transportation (Caltrans), District 8 Harvey J. Sawyer, Chief, Transportation Planning 3) Southern California Association of Governments (SCAG) Mike Ainsworth
COUNTY AGENCIES	4) County of San Bernardino, Environmental Health Services Scott R. Rose, REHS, Environmental Health Specialist III 5) County of San Bernardino, Solid Waste Management Department, Planning & Recycling Division Craig M. Congdon, Planner
LOCAL AGENCIES	6) City of Grand Terrace, Planning Department Maria C. Muett, Associate Planner and Patrizia Materassi, Planning Director 7) City of Riverside, Planning Department Philip Kilgour, Senior Planner
ORGANIZATIONS	8) Riverside Highland Water Company Eugene P. McMeans, General Manager
PERSONS	None

PART II - PUBLIC REVIEW OF THE DRAFT EIR

II.1 PUBLIC REVIEW

The public review period for the Draft EIR began on November 3, 1992 and ended on December 17, 1992, covering the CEQA mandated 45-day public review period. A Notice of Completion of a Draft EIR was filed with the State Clearinghouse along with the required number of copies of the document for circulation to various agencies. Copies of the Draft EIR were also mailed directly to local agencies, groups, and individuals for review.

II.2 LIST OF PUBLIC AGENCIES, ORGANIZATIONS, AND PERSONS COMMENTING ON THE DRAFT EIR

The public agencies, organizations, and persons that have submitted comments on the Draft EIR are listed on Table II-1. The response to each of these letters is included in Section III. Although the response period ended on December 17, 1992, comment letters received through January 20, 1993 have been responded to in this document.

Response to the Department of Transportation, District 8 (cont'd)

No significant environmental points of discussion were raised on page 2 of this letter.

SOUTHERN CALIFORNIA
ASSOCIATION OF GOVERNMENTS

818 West Seventh Street,12th Floor · Los Angeles, California 90017-3435 · (213) 236-1800 · FAX (213) 236-1825

December 9, 1992

Hani Gabriel
City of Colton
650 N. La Cadena Drive
Colton, California 92324

RECEIVED
DEC 14 1992
Community Development Dept

Dear Mr. Gabriel:

3-1 SCAG has determined that the Colton Traffic Model is a consistent model. The consistency finding is based on the following information supplied by the City of Colton:

1) Model documentation "City of Colton General Plan Circulation Element Update - Rivsan Model Conformity"
2) 2010 traffic volume plots produced by Colton's Model
3) Several meetings with City staff and Mohle Grover staff (developers of the model)

Model consistency criteria are explained in "Guidelines for Local Transportation Model Development and Consistency in Riverside and San Bernardino Counties". The following is an evaluation of the Colton Model based on the three major consistency criteria identified in the guidelines document.

1) Consistency of model inputs - Socio-economic and highway network inputs must be similar to the Rivsan Model inputs. A review of the Colton Model's socio- economic data and network assumptions demonstrates consistency with Rivsan's inputs.

2) Consistency of model procedures - The model process must be consistent with generally accepted travel demand forecasting methodology. The Colton Model essentially uses Rivsan Model procedures and parameters (generation, distribution, and assignment) and therefore satisfies this criterion.

3) Consistency in resulting forecasts - The primary concern regarding consistency is that consistent models should produce similar traffic forecasts. A comparison of future volumes on major facilities from both the Rivsan and Colton Models show that volumes are within acceptable tolerances.

Response to the Southern California Association of Governments

3-1. No response is necessary since this letter only acknowledges the consistency of the Colton Circulation Element with SCAG policies, and does not raise any significant environmental points of discussion.

Many cities in the Inland Area are either producing or currently maintain city level traffic models. Cities use these models to forecast local street volumes for design purposes and to test alternative landuse and facility scenarios. Consistency is essential to ensure that jurisdictions are performing modeling evaluations based on a set of common assumptions. Without consistency criteria the region would be inundated with contradictory forecasts which would ultimately diminish the credibility of all our modeling efforts and the planning process. In addition, State and Federal laws require that forecasts produced for environmental documents, air quality analysis, congestion management programs, and for projects seeking State or Federal funds be based on a consistent model.

Regional socio-economic projections are updated on a three to four year cycle. To maintain model consistency SCAG will work closely with your city to incorporate these updates into your model as updates occur. In addition, we urge model users to participate in the Rivsan Model Users Group which meets every other month. If you have any questions or comments please call me at (909) 784-1513.

Sincerely,

Michael Ainsworth

Mike Ainsworth

cc: Ty Schuiling, SANBAG

Response to the Southern California Association of Governments (cont'd)

No new significant environmental points of discussion were raised on page 2 of this letter. See the response to comment 3-1 on page III-9.

ENVIRONMENTAL HEALTH SERVICES

COUNTY OF SAN BERNARDINO
ENVIRONMENTAL MANAGEMENT GROUP

PAMELLA BENNETT, R.E.H.S.
Director

☒ 385 North Arrowhead Avenue • San Bernardino, CA 92415-0160 • (714) 387-4646
☐ 320 East "D" Street • Ontario, CA 91764 • (714) 391-7570
☐ 15505 Civic Drive • Victorville, CA 92392 • (619) 243-8141
☐ 17830 Arrow Boulevard • Fontana, CA 92335 • (714) 829-6244
☐ 57407 Twentynine Palms Highway • Yucca Valley, CA 92284 • (619) 228-5410
☐ San Bernardino County Vector Control Program
2355 East Fifth Street • San Bernardino, CA 92415-0064 • (714) 383-3200
☐ Environmental Enforcement and Housing
172 West Third Street • San Bernardino, CA 92415-0315 • (714) 387-6512/6515

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Colton	Rialto
Fontana	San Bernardino
Grand Terrace	Twentynine Palms
Hesperia	Upland
Highland	Victorville
Loma Linda	Yucaipa

January 7, 1993

RECEIVED
JAN 11 1993

City of Colton
Planning Department
Attn: Hani Gabriel
650 La Cadena Dr.
Colton, CA 92324

Subject: Draft EIR for Colton's Circulation Element

4-1 The Department of Environmental Health Services has reviewed the Draft Environmental Impact Report (EIR) and recommends the addition of Hazardous Materials transported in and through the City and Emergency Response to accidents from spills.

Sorry for the late response; for questions call me at (909) 387-4677.

ENVIRONMENTAL ASSESSMENT/LAND USE

Scott R. Rose REHS

SCOTT R. ROSE, REHS
Environmental Health Specialist III

SRR:bp

Response to the County of San Bernardino, Environmental Health Services

4-1. The purpose of the EIR for this project is to evaluate the environmental impacts of the proposed Circulation Element. The City of Colton Circulation Element does not include policies related to the routing of hazardous materials or the City's response to an accident or spill related to the transportation of such materials. Since this is not covered in the Circulation Element, and is not mandated by law for inclusion in such an element, it is outside of the scope of this environmental document, and was therefore not addressed.

SOLID WASTE MANAGEMENT DEPARTMENT
COUNTY OF SAN BERNARDINO
PUBLIC WORKS GROUP
Garden Office No. 1, Building B • 621 East Carnegie Drive, Suite 270
San Bernardino, CA 92415-0017 • (714) 387-0100 • Fax 387-0130

November 23, 1992

RECEIVED NOV 23 1992

Mr. Hani Gabriel, Principal Planner
City of Colton
Community Development Department
Planning Division
650 North La Cadena Drive
Colton, CA 92324

RE: Draft Focused Program Environmental Impact Report for the City of Colton Draft General Plan Circulation Element Update

Dear Mr. Gabriel:

The County of San Bernardino Solid Waste Management Department (SWMD) appreciates the opportunity to review the referenced project and offer the following comments.

PROJECT DESCRIPTION

City of Colton General Plan Circulation Element Update. Item number 16 of the Initial Environmental Study for the project stated that there would be "NO" impact on Solid Waste and Disposal utilities.

As a result of the Initial Environmental Study, it was determined that a Focused Program Environmental Impact Report (EIR) would be required for the project. The resource areas to be evaluated under the EIR include Circulation/Transportation, Air Quality, and Noise.

SWMD COMMENTS

California State Assembly Bill 2583 states that a Public Agency shall only make substantive comments on a project which are within the area of the agency's expertise or which relate to activities which that agency must carry out or approve. In consideration of the California Environmental Quality Act (CEQA) Section 15205(c), SWMD staff will focus comments on specific issues involving County Solid Waste Management operations or policies.

5-1

The project area is located on or within 1,000 feet of the currently active Colton Sanitary Landfill Facility. A portion of the extension of Washington Street as a major arterial between La Cadena Drive and Riverside Avenue would encroach upon the landfill site (which is owned by SWMD), and would limit or restrict current landfill operations and/or closure/postclosure operations.

The County of San Bernardino General Plan and State law limit or restrict incompatible land uses which may encroach upon waste disposal facilities. Landfill sites are subject to ground

Response to the County of San Bernardino, Solid Waste Management Department

5-1. The alignment of the Washington Street extension in the vicinity of the landfill is conceptual only, as shown on the figures in the draft Circulation Element and EIR. In addition, this section of the roadway is not an immediate necessity to the City of Colton, and is not expected to be constructed until the industrial area in the southwest portion of the City is developed. This industrial area is not expected to be fully developed until approximately the year 2010. Since the Colton landfill is expected to be closed as early as 1996, the construction of Washington Street in this vicinity will not interfere with current landfill operations.

The potential alignment of this section of Washington Street will not pass through the landfill area itself, but can possibly utilize the existing access road to the landfill. Because this access road traverses the perimeter of the landfill, it does not appear that there will be any difficulty constructing a public street through the ±270-foot wide strip of land between the landfill and the Santa Ana River. Since the ultimate right-of-way width of Washington Street in this vicinity is 88-feet, there should be adequate width to construct this roadway section. The dedication of this strip of property and the landfill access road, and the relocation of any refuse that may be necessary will be evaluated at the time that site specific alignments are prepared.

The feasibility of constructing Washington Street through this area will be further investigated when Washington Street is be extended. If it still appears that extending Washington Street along this alignment between the landfill and the Santa Ana River is not possible, an alternative alignment will be investigated.

COLTON CIRCULATION ELEMENT DEIR
11-19-92
PAGE 2 OF 2

settlement for a period of up to a minimum of ten years, on the order of three to ten feet per year. Additionally, final closure of the landfill facility will require ongoing monitoring and mitigation which will include groundwater monitoring, landfill gas (LFG) collection, and possible leachate

collection system operation and maintenance. Construction of a major arterial (Washington Avenue extension) through the landfill site would, therefore, be considered an incompatible land use.

SWMD requests that the City of Colton respond to these concerns before the end of the 45 day review period on December 17, 1992 so that SWMD would have an opportunity to make final comments before the end of the review period.. Our office moved on November 16th, to the address indicated below:

SOLID WASTE MANAGEMENT DEPARTMENT
222 W HOSPITALITY LN, 2ND FLR
SAN BERNARDINO, CA 92415-0017

Thank you for the opportunity to review and comment on the subject Draft Focused Program EIR. If you have any questions regarding the above comments, please contact me at (909) 381-2404.

Sincerely,

Craig M. Congdon

CRAIG M. CONGDON, Planner
Planning and Recycling Division

cc: Joe Bellandi, Supervising Planner
Mike Williams, Supervising Planner

Response to the County of San Bernardino, Solid Waste Management Department (cont'd)

No new significant environmental points of discussion were raised on page 2 of this letter. See the response to comment 5-1 on page III-15.

Planning
Department

December 17, 1992

City of Colton
Planning Department
Hani Gabriel
Principal Planner
650 N. La Cadena Avenue
Colton, CA 92324

RE: City of Colton, Circulation Element and Environmental Impact Report

Dear Mr. Gabriel,

The City of Grand Terrace wishes to extend our appreciation for this opportunity in reviewing your Circulation Element and associated Environmental Impact Report. It is an organized, user friendly and informative document.

There is informational data that the City of Grand Terrace feels may contribute to the overall scope of your document. Please refer to the comments from the City of Grand Terrace City Engineer, Joseph Kicak, in the memorandum dated December 10, 1992 to the City of Grand Terrace Planning Director (Attachment A). The issues pertain to circulation and road/bridge expansion along Barton Road.

6-1 We would strongly recommend that the Barton Road not be a truck route and the truck circulation be rerouted. The City of Grand Terrace in accordance with the Barton Road Specific Plan encourages a village commercial pedestrian environment for Barton Road, which is incompatible with large trucks. Per the City of Colton Circulation Element truck traffic is directed onto Barton Road into the heart of our commercial district.

6-2 It is unclear how the upgrade of Washington Avenue, Mt. Vernon Avenue and Interstate 215 will impact the Barton Road and Mt. Vernon Avenue in the City of Grand Terrace. Improvements may be needed on Mt. Vernon Avenue.
6-3 Therefore, the City of Grand Terrace recommends that the Mt. Vernon Avenue portion of your City, Washington Avenue to your southern boundary, be included in the CMP.

22795 Barton Road • Grand Terrace, California 92324-5295 • (909) 824-6621

Response to the City of Grand Terrace, Planning Department

6-1. The City of Colton appreciates this comment. This truck route has been removed from Figure 3a, the draft Truck Route Master Plan, for the final Circulation Element.

6-2. The City of Colton does not know the current status of the Washington Street at I-215 Interchange upgrade, or what the future design will be since this is not a City project. However, any modification to this interchange is not expected to increase the vehicular traffic flow on Mt. Vernon Avenue into Grand Terrace.

6-3. The City of Colton has not yet adopted a CMP. Mt. Vernon Avenue will be considered when the preparation of the City's CMP has been initiated.

6-4 With possible improvement on Reche Canyon Road and Pigeon Pass Road, Main Street may receive increased traffic which will exit onto Iowa Avenue enroute to the freeway. We feel Iowa Avenue should be included in your circulation element as it will be a significant connection to the freeway in the future.

6-5 We would like to take this opportunity to ask the City of Colton to consider the reconfiguration of the intersection at Main Street and Iowa Avenue to a 90 degree intersection for improved circulation. The City of Grand Terrace is considering to request SANBAG assistance to develop a corridor study for this area.

6-6 One final note, page 3-2, Figure 3.2-1 Regional Location Map does not reflect the City of Grand Terrace.

We request a copy of the final Circulation Element and EIR with "responses to comments". We look forward to future coordination on our common interests regarding circulation issues.

Maria C. Muett
Associate Planner

Patrizia Materassi,
Planning Director

cc: Thomas Schwab, City Manager
Randall Anstine, Assistant City Manager
Joseph Kicak, City Engineer

Attachments: A - City of Grand Terrace City Engineer's comments to Planning Director dated December 10, 1992.

Response to the City of Grand Terrace, Planning Department (cont'd)

6-4. Any improvements to Reche Canyon Road are expected to relieve traffic on Pigeon Pass Road and Main Street, as opposed to increasing the traffic flow on these facilities. The City of Colton is currently unaware of any plans to improve Pigeon Pass Road and will appreciate any information regarding improvements to this road in the future that is know to the City of Grand Terrace.

6-5. At the current time, the City of Colton does not recognize the need for re-aligning the Main Street at Iowa Avenue intersection based on the traffic analysis conducted for the preparation of this document.

6-6. This map was meant to orient readers of the document in terms of the geographical location of the City of Colton, and was not intended to show all of the cities in this area. For convenience of review, the City of Grand Terrace has been added to the revised figure in the Final EIR.

12.481

MEMORANDUM

TO: Patrizia Materassi, Planning Director

FROM: Joseph Kicak, City Engineer

DATE: December 10, 1992

SUBJECT: Circulation Element - (Review) - City of Colton

I have reviewed the Draft Circulation Element Update submitted by the City of Colton. There are very few areas within the report that impact the City of Grand Terrace. However, our review indicates that consideration should be given to the following additions or modifications:

6-7

1. Bus Routes

   RTA - Route 26 serving Grand Terrace enters the City of Colton on that portion of Barton Road just east of the easterly city limits of Grand Terrace. It is the portion of Barton Road in the City of Colton between Washington Street and Grand Terrace City Limits.

   Although it is of little significance to City of Colton today, it should be recognized in their circulation element for future planning.

6-8

2. Mt. Vernon Avenue - Washington Street, Colton to Grand Terrace Road/Canal Street, Grand Terrace

   Circulation element designates that portion of Mt. Vernon Avenue as Major Arterial. The street cross-section 3 (Figs. 2c and 2e) provide for the following:

   (a) Right-of-way width of 64'.

   (b) (1) 40 feet of paved roadway with 2-11 foot lanes, one in each direction, 10 foot left turn lane and an additional 4 feet of paving adjacent to curb, 15' lanes in each direction, and 12 foot parkways or;

ATTACHMENT A

Response to the City of Grand Terrace, Planning Department (cont'd)

6-7. The City of Colton appreciates this information. Figure 5a, "Bus Routes," has been revised to include this route for the final Circulation Element.

6-8. The need to revise the General Plan specifications for Mt. Vernon Avenue south of Washington Street in the City of Colton will be reviewed more closely once the City deems any improvements to this section of Mt. Vernon Avenue are necessary.

Patrizia Materassi
Page 2
December 10, 1992

(2) 40 feet of paved roadway with 2-11 foot lanes, one in each direction, 9 foot parking lanes on each side and 12 foot parkways on each side.

It would be my recommendation that this portion of Mt. Vernon Avenue be reviewed in the field to determine the feasibility with respect to the following:

(a) Need for 12 foot parkways on each side.

(b) Need for 10 foot left turn median.

(c) Need for 64 feet of right-of-way.

Based on field review, it may be appropriate to provide for a special cross-section in that area of Mt. Vernon Avenue.

3. Barton Road Truck Route and Bridge Widening

These issues are addressed from the standpoint of Bridge Widening over the S.P.R.R. and possibly over A.T. & S.F.R.R.

6-9 We recognize that majority of truck traffic on Barton Road in Grand Terrace is generated as a direct result of businesses outside the City of Grand Terrace. The bridge over S.P.R.R. which is 25% in Grand Terrace and 75% in Colton should be included within the Circulation Element. Most recent structural evaluation of the structure as it now exists does not indicate any immediate load carrying capacity problems, however, the circulation element is proposing to widen Barton Road within the City of Colton to Major Arterial, and designates it as a truck route without providing for bridge widening on Figure 4.1.2 of the Environmental Impact Report.

JK/ct

Response to the City of Grand Terrace, Planning Department (cont'd)

6-9. The City of Colton appreciates your pointing out these omissions. The City of Colton Circulation Element draft does call for the widening of these two railroad bridges on Barton Road from two to four lanes. Figure 4.1.2 in the Draft EIR will be revised for in the Final EIR.

CITY OF Riverside PLANNING DEPARTMENT • 3900 Main Street • Riverside, California 92522

Planning Division: 782-5371 (909)

Building and Safety Division: 782-5697 (909)

Fax: 782-5622 (909)

STEPHEN J. WHYLD
Planning Director

December 10, 1992

RECEIVED
DEC 1 4 1992
Community Development Dept

Hani Gabriel, Principal Planner
City of Colton
Community Development Department
650 North La Cadena Drive
Colton, CA 92324

SUBJECT: City of Colton - Draft Circulation Element and Draft EIR

Dear Mr. Gabriel:

Thank you for the opportunity to comment on the City of Colton's draft Circulation Element update and Draft EIR. As you are probably aware, the City of Riverside is in the process of updating its General Plan, including the Transportaton Element. The timing of the respective circulation updates of our two jurisdictions affords us the opportunity to coordinate circulation systems along our common boundary. Riverside calls the area on both sides of the common boundary of our two cities the "Northside Community" and in our comments below we will use this name in referring to this geographic district.

The City of Riverside has no specific comment on Colton's overall draft Circulation Element and related EIR; however, we do have a few concerns regarding the street system in the Northside Community.

7-1

1. The City of Riverside's circulation plans call for a four-lane arterial straddling our common city limits connecting Riverside Avenue/Main Street with Center Street (in Riverside). This would provide a direct connection to the I-215 Freeway. Does the City of Colton feel this would be a beneficial connection?

7-2

2. Our circulation plans propose the extension of Orange Street north into Colton (becoming Pellisier Road) as a two-lane collector. Should the City of Colton include this connection in its plan? Again the network would provide easy access for land in your city to the I-215 Freeway.

7-3

3. In light of the fact that the Northside Community in both our cities is planned primarily for light industry, do you feel that your street system as envisioned by the draft Circulation Element is adequate without the Center Street and Orange Street connections described above?

Response to the City of Riverside, Planning Department

7-1. This proposed four-lane arterial is not within the City of Colton right-of-way. The City of Colton would appreciate the opportunity to see a more specific alignment and design of this proposed street when available.

7-2. The City of Colton does not see an immediate need for the Pellisier Road/Orange Street connection. The City of Colton will consider this connection when additional development in this portion of the City occurs.

7-3. The City of Colton does not anticipate that any circulation problems will occur with the Draft Circulation Element without the Orange/Pellisier and proposed four-lane street connections. The City of Colton Draft Circulation Element includes two conceptual street extensions in the southern portion of the City which are intended to provide access for future land development and additional access to/from I-215.

Hani Gabriel | City of Colton Circulation Element | December 10, 1992

7-4 At this time The City Of Riverside is preparing a specific plan for the extensive acreage which it owns in both Colton (about 170 acres) and Riverside; therefore, early agreement on the future street network would be highly desirable. We would ask that you consider the questions raised in this letter and that you respond with your thoughts on them. Hopefully a mutually beneficial circulation plan can be devised. We hope to hear from you soon and we would be happy to meet with the City of Colton on this issue.

You may reach me by telephone at (909) 782-5919.

Very truly yours,

Philip Kilgour

Philip Kilgour
Senior Planner

Response to the City of Riverside, Planning Department (cont'd)

7-4. The City of Colton Circulation Element provides a plan for the future circulation that best meets the needs projected to impact the City's roadways. The City would appreciate the opportunity to review and comment on the specific plan mentioned in the comment when it is available.

RIVERSIDE HIGHLAND WATER COMPANY
THINK - PLAN - PERFORM
CONSERVATION
1450 Washington Street • Colton, California 92324 • (909) 825-4128

January 20, 1993

HANI GABRIEL
Principal Planner
City of Colton
Community Development Department
650 N. LaCadena Ave.
Colton, CA. 92324

RE: DRAFT E.I.R. CITY OF COLTON - CIRCULATION ELEMENT

Dear Mr. Gabriel,

I have reviewed this document from two perspectives: one, as a utility agency and the other as a Colton citizen.

The many items of concern are:

8-1 1) Rancho Avenue - La Cadena Drive to North city limits: Riverside Highland Water Company has a major transmission potable water main and would want to be part of the planning process as much of this main could be replaced prior to or during road construction.

8-2 2) Barton Road - LaCadena Drive to Washington Street: Riverside Highland Water Company crosses Barton Raod near Hill Top Drive in two locations and would want to be involved in planning.

8-3 3) Washington Street - Mt. Vernon Avenue to Waterman Avenue: Riverside Highland Water Company crosses Washington Street with two potable water mains and would plan to replace the mains during street construction.

8-4 4) Figure 2b - I am assuming that the rail transit station for Metro Link would be at "H" St. and 7th St. If so, what is the planned embark/disembark at this station? Is there sufficient parking and there does not appear to be sufficient circulation to support this location?

8-5 5) Figure 2c - Six lanes with raised median or painted median - it is difficult to determine, but I intrepret all of Cooley Dr. being six lanes. Currently, the east/west section divided by the flood control has only sufficient road bed for four lanes. Why widen to encourage truck traffic through the residential area of Cooley Dr? Why not traffic stripe Cooley Dr. from the northwest curve to Washington St.as four lanes?

8-6 6) Figure 2d - La Cadena Ave. between "H" Street and 8th St.So many parcels along La Cadena Ave. with "Historical Designations" and minimum set back, no off street parking, this designation is not practical, environmentally correct, or economic. Why not leave as

Response to the Riverside Highland Water Company

8-1. Thank you for your interest. The City of Colton would appreciate your involvement in the planning of Rancho Avenue at the time when any design plans are initiated.

8-2. The City of Colton again appreciates your interest. Your involvement in the planning of any street improvements, if needed, on Barton Road in this vicinity would be appreciated.

8-3. Thank you for your comment. The City of Colton will take your comment into consideration when design plans are initiated for the section(s) of Washington Street at the locations of the two water mains.

8-4. The City of Colton will study the demand, parking demand and circulation adequacy of this proposed Metrolink station at the time when plans are initiated for the construction of this rail station.

8-5. If Cooley Drive is ever widened to a six-lane section, it most likely will never be striped as a six-lane section. The General Plan designation for Cooley Drive is a six-lane section only because there is sufficient right-of-way available for a six-lane section. Truck traffic will never be permitted on Cooley Drive since this street is not a designated truck route. Cooley Drive most likely will be striped to four-lanes only, not six.

8-6. Capacity analysis conducted for this General Plan Circulation Element update indicates that a four-lane street cross section along La Cadena Drive between "H" Street and 8th Street (Fogg Street) is required to accommodate the future traffic demand. Therefore, Figure 2d (in the Circulation Element) shows a cross section designation of "2" for this section of La Cadena Drive.

HANI GABRIEL
Principal Planner
City of Colton

RE: DRAFT E.I.R. CITY OF COLTON - CIRCULATION ELEMENT

cross section "2"?

7) Figure 3a (truck route) -

8-7 a) San Bernardino Ave. between Pepper Ave. and Sycamore: Why is this a truck route? The land use in this area is residential and there is a major park on San Bernardino Ave. with inadequate off-street parking, so there will be high pedestrian traffic.

8-8 b) Slover Ave. between Pepper Ave. and city limits- What is the general plan designation for this area? If this is light manufacturing, should this street be designed for truck traffic?

8-9 c) Rancho Ave. between Valley Blvd. and Mill St. - How does truck traffic get from Mill Street to the I-10 Freeway or from the industrial complexes on Pennsylvania Ave. at Laurel, Olive St. at railroad, Laurel St. at 8th Street and Miller Ave.to the freeway?

8-10 d) Cooley Dr. from industrial complex under I-215 Freeway to Mt. Vernon Ave. Caution must also be taken not to direct traffic onto Cooley Dr. residential area

My understanding for truck route designation is for proper load bearing designs.

8-11 8) Regional Trails, page 23 - Should this section elaborate on the multipurpose trail design requirements for the Reche Canyon Creek Trail? Design considerations should be considered for the intersections of the creek at Washington St. and also at Mt. Vernon Ave.

8-12 9) Metro Link Rail Line, page 27 - This section should be expanded to recognize the need to tie the east side of I-215 freeway to the Metro Link station along LaCadena Ave. with the least conjestion possible. On Figure 2a circulation plan, Washington St. between Mt. Vernon Ave. and La Cadena Ave. is noted as a major artieral road, but I do not see any indication that this road is not built. Should there be a target construction date?

8-13 10) Vehicle Trips Technical Methodology, page 5 - I do not understand where some of the traffic counts were derived. Traffic count for this report on Reche Canyon Rd. are different than the traffic counts from 1988 used for the Reche Canyon specific plan.

8-14 11) Appendix E, "Intersections" - The Reche Canyon Rd. intersections are important to the citizens of Colton. Four intersections were recognized in the Reche Canyon specific plan, yet none were recognized in this Circulation Element Report. Even though the intersections of Reche Canyon Rd. at Prado Lane, Westwood Ave., Topanga Way, and Scotts Lane are currently in the county, this report is

Response to the Riverside Highland Water Company (cont'd)

8-7. The General Plan designation for San Bernardino Avenue between Pepper Avenue and Sycamore Avenue is a four-lane secondary arterial, so there will be adequate room for truck traffic. In addition, the General Plan designation on the south side of San Bernardino Avenue is an industrial park designation, which will require sufficient truck access.

8-8. Slover Avenue between Pepper Avenue and the City limits is within an area designated as "specific plan" per the current General Plan. It is anticipated that this area will be occupied eventually by heavy industrial land uses. Therefore, sufficient truck access to this area will be essential.

8-9. Truck traffic can travel from Mill Street to Interstate 10 via either Pepper Avenue or Mt. Vernon Avenue. The industrial areas adjacent to Pennsylvania Avenue are designated light industrial per the current General Plan and therefore most likely will not be subject to heavy truck traffic.

8-10. The Southern Pacific Railroad separates this industrial complex from Cooley Drive. Therefore, an access point on Cooley Drive will most likely never be possible. This industrial complex is already served by a dedicated access road which connects to Hunts Lane.

8-11. The City of Colton will consider the regional trail design requirements of the Reche Canyon Creek Trail at the time this trail is upgraded to a regional trail. The Mt. Vernon Avenue and Washington Street trail crossings will also be considered at this time.

8-12. Access to and from the future Metrolink station at the La Cadena Drive at Fogg Street intersection for the areas on the east side of I-215 will be provided by either the Mt. Vernon - "M" Street - Fogg Street route or the Washington Street (when constructed) - La Cadena Drive route. Currently, there is no target construction date for the Washington Street extension to La Cadena Drive.

8-13. The traffic count data for the General Plan Circulation Element Update analysis was gathered by the City's consultant for the project (Mohle, Grover and Associates).

8-14. There was one intersection along Reche Canyon Road (Reche Canyon at Washington Street) which was analyzed in this analysis. The remaining intersections along Reche Canyon Road involve local streets, and therefore, are not considered significant intersections from a traffic operational standpoint. The City of Colton will monitor the performance of these intersections on an on-going basis as this area of the City becomes more developed.

HANI GABRIEL
Principal Planner
City of Colton

RE: DRAFT E.I.R. CITY OF COLTON - CIRCULATION ELEMENT

supposed to be long range to the year 2010. The Colton City Council in October, prezoned all of the San Bernardino County properties to Colton zoning. Why weren't these intersections included in the circulation plan?

This report is inadequate in many areas of recognizing the true City of Colton. Hopefully, staff will review in detail, so an adequate planning tool is designed for good decisions.

Sincerely,

Eugene P. McMeans
General Manager

EPM/kb

cc: David Zamore, Director Colton Community Dev.
Mark Lewis, City Manager Colton

Response to the Riverside Highland Water Company (cont'd)

No new significant environmental points of discussion were raised on page 3 of this letter. See the response to comment 8-14 on page III-33.

PART IV - ADDENDUM TO DRAFT EIR

The following section contains a set of addendum pages to the Draft EIR. The changes in this section are the result of staff and public review, and are meant to provide clarification of the analyses and mitigations within the Draft EIR. The changes within this section were not found to be substantial changes to the Draft EIR by the lead agency, and therefore, no recirculation of the Draft EIR is warranted.

In the following section, headings describing the location of a change will be underlined (i.e., Section 1.2, 1st Paragraph). Below this heading will be the changes to the identified location. Additions will be noted with a grey background (new addition), whereas deletions will be shown with a strikeout notation (~~deletion~~).

Page 3-2, Figure 3.2-1

Figure 3.2-1 has been revised to include a reference to the City of Grand Terrace.

Page 4-2, Section 4.1.1, Mitigations

~~3) Any project impacting 5 or more acres of land will be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit.~~

3) A National Pollutant Discharge Elimination System (NPDES) permit will be required of all construction activity that would disturb five or more acres.

Page 4-7, Figure 4.1-2

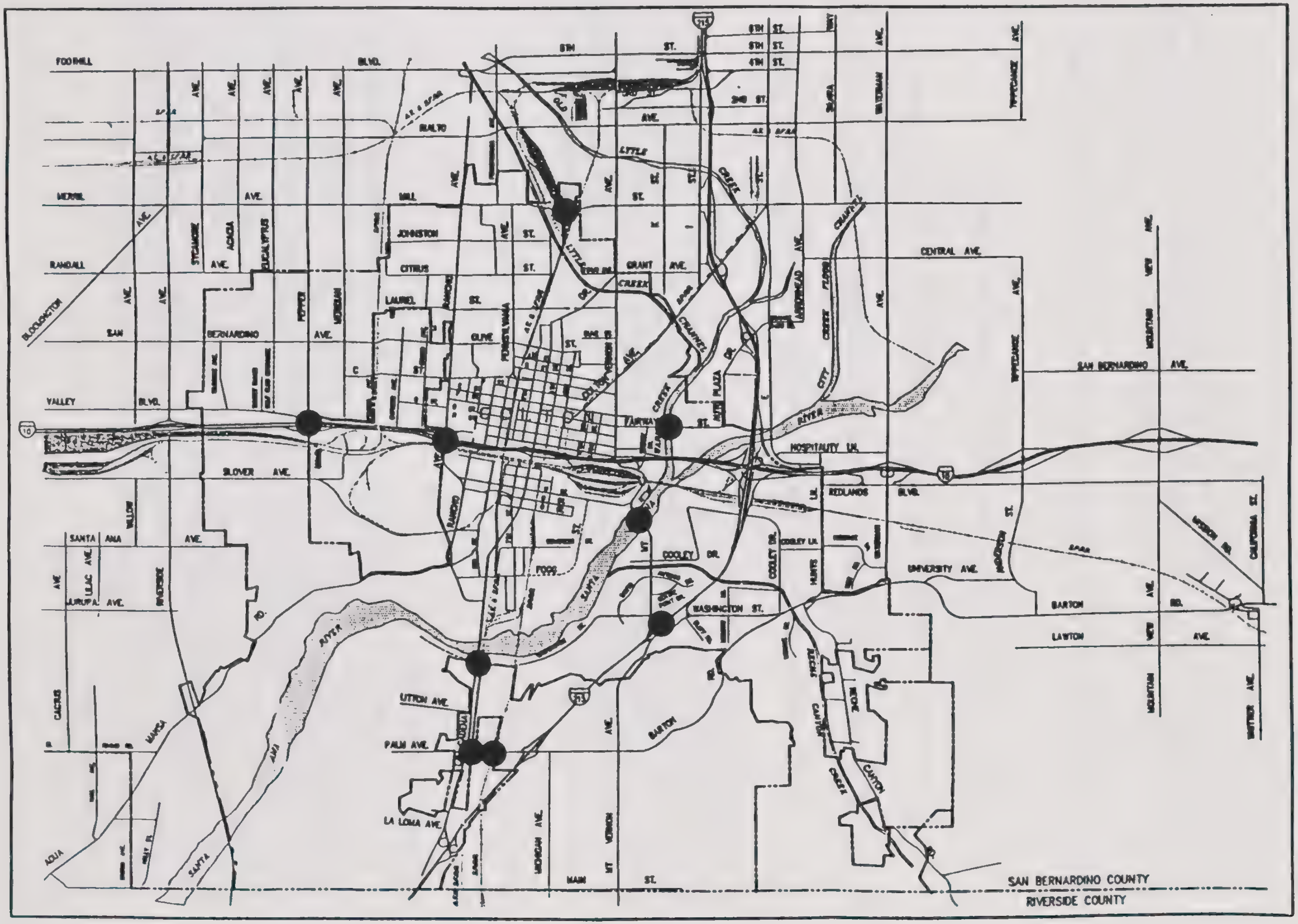
Per comment 6-9 from the City of Grand Terrace, Figure 4.1-2 has been revised to show bridge widening projects for the two railroad bridges on Barton Road.

Page 4-9, Section 4.2.1, Level of Service Definition

In order to evaluate the operating conditions of the current and future circulation system, the concept of Level of Service (LOS) is used. There are six LOS ratings, LOS "A" through LOS "F", each associated with

In order to evaluate the operating conditions of the current and future circulation system, the concept of Level of Service (LOS) is used. ~~An LOS is a measure of the effect on traffic flow of factors such as speed, interruptions to traffic flow, and the driver's freedom to maneuver.~~ There are six LOS ratings, LOS "A" through LOS "F", each associated with ~~two measurements~~ a measurement of stopped

Figure 3.2-1
Regional Location



Bridges to be Widened

Figure 4.1-2
Bridge Widening Projects

Chambers Group, Inc.

north

delay. ~~The first is a measurement of how long each driver is delayed on average at a signalized intersection.~~ The delay methodology provides a measurement of how long each driver is delayed on average at a signalized intersection. Table 4.2-1 provides a list of the six ratings and their associated definitions. The updated Circulation Element considers delays of up to 60 seconds per vehicle as acceptable. ~~The second measure used is a volume to capacity measurement at each intersection.~~ Although not used to determine LOS, the Circulation Element also assesses intersection efficiency by measuring each intersection's volume to capacity ratio. The updated Circulation Element allows ~~up to 0.95 (95%)~~ a utilization factor of up to 1.00 (100%) of total capacity to be used before a significant impact on circulation is determined to exist. ~~Table 4.2-1 provides a list of the six ratings and their associated definitions.~~

Page 4-9, Section 4.2.1, Intersection Analysis

Using the proposed LOS "E" rating described above, only the intersection of Mt. Vernon Avenue at Washington Street was found to exceed this level at the current time, and this exceedence occurs only during the PM peak hour. The LOS for this intersection is expected to be reduced to an LOS "E" or better for the PM peak hour later this year after the completion of a scheduled RDA project. ~~four existing intersections within the planning area were found to not meet this standard based on the delay methodology. These intersections are:~~

- ~~Mt. Vernon Avenue @ Washington Street (AM and PM peak hour)~~
- ~~Reche Canyon Road/Hunts Lane @ Barton Road (PM peak hour only)~~
- ~~Hunts Lane @ Redlands Boulevard/Steel Road (PM peak hour only)~~
- ~~Waterman Avenue @ Barton Road (PM peak hour only)~~

Page 4-21, Section 4.3.1, Air Quality Planning, Third Paragraph from page bottom

The goal of the 1991 Plan is to reach federal attainment for CO, NO_2, PM-10, and ozone in the years ~~2000,~~ 2000, 2006, and 2010, respectively. The State standards for attainment differ from the federal standards with anticipated attainment for CO by 2005, NO_2 in 2000, and PM-10 and ozone past 2000.

DRAFT EIR

CITY OF COLTON

CIRCULATION ELEMENT UPDATE

DRAFT ENVIRONMENTAL IMPACT REPORT

State Clearinghouse No. 92062095

Prepared for:

CITY OF COLTON
Community Development Department
Planning Division
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OCTOBER 1992

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1. Executive Summary

SECTION 1 - EXECUTIVE SUMMARY

1.1 PROJECT DESCRIPTION

The purpose of the Colton Circulation Element, as stated within the draft element, is as follows:

> The purpose of the Circulation Plan is to provide for the safe, convenient and efficient circulation system for the City. In order to meet this objective, the Circulation Element has been designed to accommodate the anticipated transportation needs based on the estimated intensities of various land uses within the region. This element describes the extent of physical improvements needed to accommodate anticipated population growth and also introduces other techniques (e.g., restricted street parking, transportation system management plans and congestion management plans) which can be used to improve and maintain an acceptable Level of Service for the City's circulation system.
>
> The element is also intended to serve as a basic plan for other infrastructure systems such as sewer lines. As the State's General Plan Guidelines indicate, the Circulation Element is actually an infrastructure plan which "concerns itself with the circulation of people, goods, energy, water, sewage, storm drainage and communications."

In order to satisfy the purpose statement above, the Circulation Element was divided into three components:

- Goals and policies.
- Existing conditions and future standards, including required roadway and intersection improvements, and mass transit.
- Implementation program.

The infrastructural components of the Circulation Element, such as sewer, water, energy, storm drains, and communications, will reference existing, approved plans and policies. This element will not propose changes to these existing plans.

1.2 SUMMARY ENVIRONMENTAL SETTING

The City of Colton is located in western San Bernardino County, south and west of the intersection of Interstates 10 and 215, and located between the Cities of San Bernardino and Riverside. The City of Colton is bounded by the Cities of San Bernardino on the north and east, Loma Linda on the east, Grand Terrace and Riverside on the south, and Rialto on the west.

The City of Colton presently encompasses approximately 17.6 square miles, and is projected to continue its rapid growth over the next twenty years. Colton's current population of 42,100 is expected to grow to over 80,000 by the year 2010.

1.3 SUMMARY OF ENVIRONMENTAL IMPACTS

The City of Colton has determined that an Environmental Impact Report (EIR) should be prepared for this proposed plan pursuant to Section 15065 of the California Environmental Quality Act (CEQA) Guidelines. The purpose of the EIR is to identify any significant environmental impacts associated with the proposed plan, and to recommend mitigations that would either:

- Reduce the significant impacts to a level of insignificance.
- Mitigate the plan in order to avoid significant impacts.

Mitigations will also be presented in this document that will reduce the intensity or context of adverse impacts in order to reduce the magnitude of such an impact.

1.3.1 Identification of Issues to be Addressed

Prior to proceeding with the preparation of this EIR, the City of Colton prepared the Initial Study (IS), including an environmental assessment form, that was designed to both determine the need for this EIR as well as specify the scope of this document. This Initial Study and the accompanying Notice of Preparation (NOP) were sent to a range of agencies that have jurisdiction or discretionary powers over various aspects of the plan. These agencies were requested to review the NOP/IS, and provide the City of Colton with a letter outlining their concerns with the proposed plan. A list of the agencies and persons contacted, and the responses received is included in Appendix H of this EIR.

The NOP/IS documents were used by the City in defining the scope of analysis that should be contained in this focused Program EIR. This scope helped define the resource areas evaluated: Circulation/Transportation, Air Quality, and Noise. Initially, Land Use was also defined as a resource issue due to the possibility of impacting existing housing for rights-of-way and roadway widening. However, since the release of the NOP/IS, the City has decided against widening of rights-of-ways.

In order to determine if a significant adverse impact would exist, a set of significance criteria were created for each of the resources. These criteria make it easy for the reader to understand the logic of determining significance as well as assist the analysts in their determinations. With these criteria available, a series of field evaluations, modeling and analytical techniques were completed in order to determine the possible effects of the proposed plan.

The results of this analysis are summarized on Table 1.3-1. This table provides a summary of the environmental impacts and mitigation measures that would occur with implementation of the proposed plan. Indication is also made as to the residual effect (or impact significance) after mitigation. Further

information on any topic discussed in the summary can be found under the appropriate resource area in Section 4 of this EIR.

1.3.2 Unavoidable Significant Adverse Impacts

The following unavoidable significant adverse impacts were identified:

- **Air Quality**. Short-term significant impacts are possible depending on the size and intensity of a given construction project. After project completion, local traffic is expected to add over 30.5 tons of criteria pollutants to the air on a daily basis.

  Although a significant impact on air quality is possible for an individual roadway construction project, it should also be noted that the proposed plan will result in a lower adverse impacts than those that would occur under the City's current Circulation Element. The reduction of congestion, the provision of alternative transportation (bikeways), and the encouragement of public transit facilities greatly reduced the adversity that could occur.

1.3.3 Significant Adverse Impacts That Can Be Mitigated To Insignificance

- **Circulation/Transportation**. One intersection, Washington Street at Reche Canyon Road/Hunts Lane, was found to not meet the policy guidelines set out in the Circulation Element for future traffic conditions. This impact was mitigated through requirements for site specific traffic impacts for projects impacting this intersection.

- **Noise.** Short-term impacts may exist during construction activities. Significant increases in noise levels will occur along new roadway segments. Adverse but not significant increases in noise levels will occur on existing roadways.

1.3.4 Environmental Resources Not Considered In Detail

The following impacts were evaluated in the NOP/IS, and were determined not to have a potential significant impact.

- **Earth Resources.** Because of the relatively flat topography in most of the planning area, and since roadways in the hills are proposed along existing rights-of-way, no changes to existing topography or ground surface relief is expected.

Table 1.3-1
IMPACT AND MITIGATION SUMMARY - COLTON CIRCULATION ELEMENT EIR

Existing Conditions	Issues and Impacts	Summary of Mitigations	Responsible for Mitigation	Residual Impact
CIRCULATION/TRANSPORTATION				
Four City signalized intersections do not meet accepted Level of Service (LOS). The City is currently served by Omnitrans for public transit, and has a limited bike route system. Other infrastructure operate under existing master plans that will meet future demand within the City.	With implementation of the Circulation Plan, one intersection, Washington Street at Reche Canyon Road/Hunts Lane, will not meet the criteria established in the Element.	Analyze peak-hour and intersection level of service impacts for each proposed project that could impact the significantly impacted intersection of Washington Street at Reche Canyon Road/Hunts Lane. Require that new development maintain consistency with the adopted Circulation Element.	City Of Colton, Community Development Department, Department of Public Works	Remains adverse, but is reduced to insignificant.
AIR QUALITY				
Local climatic conditions are warm summers, mild winters, infrequent rainfall, limited daytime on-shore breezes and comfortable humidities. Pollutants tend to stack-up against foothills of San Bernardino Mountains, resulting in some of the worst air quality in California.	With regard to the proposed Circulation Element, potential significant air impacts may result from construction activities involved in roadway improvement and modification. Significant long-term beneficial impacts due to a reduction in congestion and emissions will also occur.	Construction impacts are reduced with exhaust,dust and asphalt emission measures. Operational impacts are reduced by measures aimed at reducing vehicle miles traveled on a daily basis and through stationary source energy conservation methods.	City of Colton, Community Development Department, Department of Public Works	Potential significant adverse impacts from construction if more than 6 pieces of equipment are operating for an 8-hour day.
NOISE				
The planning area is exposed to typical urban noise levels, with higher noise levels occurring near the I-10 Freeway, the Southern Pacific Railroad tracks, and noise from aircraft approaching Norton AFB.	Construction activities will create short-term noise level increases that will create potentially significant impacts. Higher noise exposure from increased buildout traffic is decreased as implementation of Circulation Plan reduces daily miles traveled. Rerouting of traffic may impact new areas.	Mitigations to reduce noise impacts will include limiting construction hours, increasing setbacks, structure soundproofing and decreasing local speed limits.	City of Colton, Community Development Department, Department of Public Works	Remains adverse, but reduced to insignificant.

Table 1.3-1
IMPACT AND MITIGATION SUMMARY - COLTON CIRCULATION ELEMENT EIR

Existing Conditions	Issues and Impacts	Summary of Mitigations	Responsible for Mitigation	Residual Impact
EARTH RESOURCES				
Most of the City of Colton is relatively flat with hills at the western end of the City. No unique geologic forms are known to exist in the area.	No adverse changes to existing topography or ground surface relief is expected. Little grading should be required. No significant earth resource impacts are expected.	Erosion control plans and NPDES permit required before site disturbance.	City of Colton, Department of Public Works	Insignificant
HYDROLOGY AND DRAINAGE				
According to the City of Colton General Plan Final EIR (May 5, 1987), Flood Insurance Maps (FIRM) for Colton indicate that approximately 1,500 acres are subject to inundation from a 100-Year storm. Approximately 1,000 acres adjacent to the Santa Ana River are subject to severe flooding.	Beneficial impact on the hazards of flooding by providing an efficient storm drain system City-wide. Increase in impermeable surface will result in an incremental increase in surface runoff.	Runoff control measures shall be utilized where necessary to maximize the control of runoff during construction including, temporary seeding, mulching and vegetative buffer strips.	City of Colton, Community Development Department, Department of Public Works	Minor adverse impact, but no significant impacts identified.
LAND USE				
The Circulation Element is based on existing and future City land uses as defined in the Land Use Element.	Implementation of the proposed plan is necessary to facilitate anticipated development in the City and in adjacent communities through the Year 2010.	No mitigation required.	Does not apply	No significant adverse impacts identified.
PUBLIC SERVICES AND UTILITIES				
The City of Colton Public Utilities Department provides and maintains the City's domestic water services, sewage system, and storm drain system.	Benefit fire protection and police services by providing more efficient movement through City streets. The current water, sewer, and storm drain master plans indicate systems adequate to serve buildout demand. Circulation plan will improve storm drain system.	Notification to fire and police of lane closures and/or detours. Use of reclaimed water for irrigating ROW landscaping when feasible.	City of Colton, Department of Public Works	Insignificant

Table 1.3-1
IMPACT AND MITIGATION SUMMARY - COLTON CIRCULATION ELEMENT EIR

Existing Conditions	Issues and Impacts	Summary of Mitigations	Responsible for Mitigation	Residual Impact
BIOLOGICAL RESOURCES				
Biological resources will be defined on a project by project basis.	Specific impacts to biological resources can not be adequately identified in this Program EIR due to a lack of accurate roadway alignments. Section 404 and Section 10 permits and a stream alteration agreement (1601) from the California Department of Fish and Game.	Individual projects will require specific biological assessments. Determination of project impacts would then be made on a project by project basis.	City of Colton, Community Development Department, Department of Public Works. Calif. Dept. of Fish and Game. U.S. Army Corps of Engineers.	Determined at time of project assessment.
CULTURAL RESOURCES				
Cultural resources will be defined on a project by project basis.	Specific impacts to cultural resources can not be adequately identified in this program EIR.	Individual projects will require specific cultural assessments. Determination of project impacts would then be made on a project by project basis.	City of Colton, Community Development Department, Department of Public Works. San Bernardino County Museum.	Determined at time of project assessment.
AESTHETICS				
Within the planning area, the existing aesthetics on a areawide basis are dominated by the existing urban landscape.	The proposed project will extend the urban landscape in the planning area through the construction of new or expanded roadways. These types of uses are consistent with the existing development in the area, and no impacts are expected.	No mitigations required.	Does not apply.	Insignificant.

- **Hydrology and Drainage.** Slight increase in surface run-off which may contain surface contaminants which are deposited by vehicles travelling on the roadways and then washed off during rains and any on-site grading.

- **Land Use.** The Circulation Element responds to growth planned for in the General Plan. This proposed Circulation Element is not considered to be growth inducing. The proposed plan will also not require the expansion of any rights-of-way, and roadway extensions are planned only through vacant land.

- **Public Services and Utilities.** No adverse impacts were found to exist with implementation of the proposed Circulation Element. Potential beneficial impacts may result for emergency response due to less congestion and completion of the roadway system.

- **Biological Resources.** Construction activities may involve potentially significant impacts to plants and wildlife. Biological assessments must be made with each individual project.

- **Cultural Resources.** During grading there may be the potential to find cultural resources (historic) on site. Cultural resource assessments must be made with each individual project.

- **Aesthetics.** Implementation of the proposed plan is not expected to create a measurable impact on aesthetics. Roadway development or expansion are in keeping with the urban environment within the planning area.

1.3.5 Beneficial Impacts

Beneficial impacts on Circulation/Transportation and Public Services/Emergency Services are expected to occur due to reductions in congestion.

1.4 AREAS OF CONTROVERSY AND UNRESOLVED ISSUES

The project has gone through several reviews with the City of Colton and other responsible agencies, and the Circulation Element has been revised to answer these concerns. One such concern was the expansion of rights-of-way within the planning area. The current plan has removed these expansions, and new cross-sections that stay within existing rights-of-way have been developed.

No areas of controversy have been raised that still exist at this time. Unresolved issues remaining at this time primarily deal with the programmatic nature of this EIR. Since details about the individual projects that make up the Circulation Element are not known, this document tries to quantify the range of impacts possible, or defines the thresholds at which significant impacts would occur.

1.5 ALTERNATIVES TO THE PROPOSED PROJECT

This EIR evaluates alternatives to the proposed project as required by CEQA's implementation guidelines (Section 15126d). Per the guidelines, "The discussion of alternatives shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." The following is a brief description of the alternatives considered in detail in Section 6 of this EIR.

1.5.1 No Action Alternative

The no action alternative was evaluated as part of the analysis presented in Section 4. With this alternative, the planning area will experience a much higher level of congestion than is predicted with the proposed action. This higher level of congestion will also contribute to higher long-term air quality impacts from mobile sources. Other impacts are considered to be similar to the proposed action.

1.5.2 Expanded Rights-of-Way Alternative

As part of the development of the Circulation Element, one proposed method of reducing congestion was to create a new set of roadway cross-sections that provided wider lanes within an expanded right-of-way. Since the current proposed Element was able to achieve similar congestion reduction utilizing smaller cross-sections, this alternative actually produced higher impacts in some areas. Impacts on circulation/transportation and air quality are basically the same. The expanded rights-of-way proposed will contribute to potentially significant noise and land use impacts due to the encroachment of roadways significantly closer to some residential uses.

1.5.3 Environmentally Superior Alternative

Based on an evaluation of the environmental impacts associated with the proposed action and the two alternatives evaluated, the environmentally superior alternative is the proposed action.

2. Introduction

SECTION 2 - INTRODUCTION

2.1 PURPOSE AND USE OF EIR

In terms of CEQA review, the "project" being evaluated in this EIR is the proposed City of Colton Circulation Element. The proposed Circulation Element provides a complete documentation of existing transportation conditions, as well as plans for meeting the future transportation demands within the City as projected by the City's Land Use Element.

The California Environmental Quality Act (CEQA) requires that the potential environmental impacts of a project be identified, and mitigation measures that may reduce significant impacts be recommended. In accordance with CEQA, an initial study was prepared for the City of Colton Circulation Element. The conclusion of the initial study was that this project may have significant environmental impacts on three environmental resources, and therefore, a focused environmental review was warranted.

State law (CEQA) also requires that the Lead Agency consider the information contained in this EIR prior to taking discretionary action on the proposed project. For the lead agency (City of Colton) the discretionary actions for this project include the approval of the proposed Circulation Element, as well as future approvals of individual transportation projects described in the Circulation Element. Since this project is a long-term policy plan, and individual projects will be approved in the future in accordance with this plan, the EIR prepared is intended to be a focused Program EIR (as defined in Section 15168 of the CEQA Guidelines). This EIR will be applied to future development projects processed in conformance with the Circulation Element. Future transportation projects that are consistent with this Circulation Element will not require further environmental documentation unless important changes relevant to this EIR have occurred as specified in Section 15162 of the CEQA Guidelines, or if site specific impacts are outside the scope of this policy level document (such as development in a streambed). This EIR may also be used by other public agencies (responsible agencies under CEQA) which must make discretionary actions relative to the proposed project, such as the granting of discretionary permits or entitlements.

This EIR is intended to provide information to the City of Colton, other public agencies, and the general public, regarding the potential for significant short- and long-term environmental impacts associated with the proposed project and its implementation. This EIR is also required to investigate feasible mitigation measures that will reduce significant adverse environmental effects of the proposed project to acceptable levels.

2.2 SCOPE OF THE EIR

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, the City of Colton, as the Lead Agency, has prepared an Initial Study and a Notice of Preparation (NOP) of a Draft EIR. These were circulated to various public agencies and interested groups and individuals for a 30-day comment period that ran from June 18, 1992 through July 21, 1992.

Appendix H contains a copy of the NOP and Initial Study as well as a list of persons that were mailed a copy of these documents. Appendix H also contains the responses that were received from agencies and the public during the comment period.

The Initial Study and responses to the NOP were used to define the scope of the EIR. Through this process, it was determined that three resource areas had the potential for significant impacts, and that a focused EIR would be needed to fully assess the project's potential for significant impacts on these resources. The three resources that make up this focused EIR are:

- Circulation/Transportation
- Air Quality
- Noise

Land Use was also identified in the Initial Study as a resource issue that could have potential significant impacts. This finding was based on the current draft of the Circulation Element that proposed new cross-sections that would have required the City to acquire expanded rights-of-way in areas throughout the City. These expansions would have required the City to obtain additional land from private property owners, and would have resulted in an encroachment in many residential areas, and therefore, a potential significant impact. Since the Initial Study was released, the City has directed that street rights-of-way not be widened. This eliminated the potential impact to the City's housing stock. Therefore, as no other potential land use impacts were identified, further analysis of Land Use was not deemed necessary.

In addition to these resources, the EIR also contains all of the sections required by CEQA. Table 2.2-1 contains a listing of all of the sections required by CEQA along with a reference to the section and page number where these items can be found in this document.

2.3 TECHNICAL STUDIES

As a part of the environmental analysis process, technical studies were prepared for each of the resource areas being evaluated in the EIR. A brief description of these studies is provided in this section. Details on the methods and findings of each study are discussed in the related resource area in Section 4 of this EIR.

2.3.1 Traffic Study

A traffic impact study was completed by Mohle, Grover and Associates for use in preparing and evaluating the proposed Circulation Element. This study modeled existing conditions, future conditions without the project, and future conditions with the proposed project. Both of the future condition assessments included expected regional growth rates and identifiable cumulative traffic levels associated with anticipated development in the surrounding area. An analysis of traffic impacts is reported in Section 4.2 of this EIR. The technical report is included in the Circulation Element, with the modeling results presented in Appendices A through G.

Table 2.2-1

REQUIRED EIR CONTENTS

Required Section (CEQA)	Section in EIR	Page Number
Table of Contents (Section 15122)	n/a	i
Summary (Section 15123)	1	1-1
Project Description (Section 15124)	3	3-1
Environmental Setting (Section 15125)	4.1-4.4 By Resource	Var.
Significant Environmental Effects of Proposed Project (Section 15126a); Environmental Impacts	4.1-4.4 By Resource	Var.
Unavoidable Significant Environmental Effects (Section 15126b)	4.1-4.4 By Resource	Var.
Mitigation Measures (Section 15126c)	4.1-4.4 By Resource	Var.
Alternatives to the Proposed Action (Section 15126d)	6	6-1
Growth Inducing Impacts (Section 15126g)	7	7-2
Local Short-Term Uses Versus Long-Term Productivity (Section 15126e)	7	7-1
Irreversible Environmental Changes (Section 15126f)	7	7-1
Effects Found Not to be Significant	4.1-4.4 By Resource	Var.
Organizations and Persons Consulted (Section 15129)	8	8-1
Cumulative Impacts (Section 15130)	5	5-1
Note: "Var." indicates text is found under specific subheading on various pages.		

2.3.2 Air Quality Analysis

An air quality analysis was preformed for the project by Chambers Group, Inc. The study included a detailed impact analysis of activities involved in construction and implementation of the plan and its components. The results of this study are detailed in Section 4.3 of this EIR.

2.3.3 Noise Analysis

A noise analysis was conducted for the proposed project by Chambers Group, Inc. This study included a detailed analysis of both short-term (project construction) and long-term (project implementation) impacts associated with the project. The results of this study are detailed in Section 4.4 of this EIR.

2.4 EIR FORMAT AND ORGANIZATION

This EIR is made up of eight sections that describe the proposed plan and environmental setting, analyze the environmental impacts that are related to the project, and propose a set of project mitigations that are associated with the impacts identified. The following paragraphs summarize the content of each section within the EIR.

Section 1 contains the *Executive Summary* for the EIR. This includes an overview of the proposed plan and a summary of the impacts and associated mitigation measures. This section concludes with a summary of the project alternatives.

Section 2 of the EIR is the *Introduction*. This portion of the report discusses general issues regarding the purpose of this document, the scope of the analysis that was conducted, the technical studies prepared, and the format and availability of the EIR.

Section 3 covers the *Project Description*. This section is used to put the environmental analysis in perspective for the reader. This section is meant to only summarize the major components of the Circulation Element. Since the Circulation Element and the EIR are bound as a single document, the EIR does not go into detail concerning the proposed project. Detailed information on the project can be obtained from the Circulation Element itself.

Section 4 of this document contains the *Environmental Impacts Analysis* that was performed for this plan. For each of the three resources identified in Section 2.2, the existing environment, impact assessment methodology, impacts identified, proposed mitigations and the significant unavoidable adverse impacts are detailed.

Section 5 discusses the *Cumulative Impacts* that are associated with the proposed project in combination with other projects in the area surrounding the project area.

As required by the California Environmental Quality Act (CEQA), Section 6 includes an analysis of potential *Alternatives to the Proposed Project*. Included in this section is an analysis of the "no action alternative".

Section 7 covers several items that are required elements of an EIR. These elements deal with the *Long-Term Implications of the Proposed Project*, including the growth inducing impacts of the proposed project.

The *Report Preparation Resources* that were used in the EIR are listed in Section 8.

2.5 USES OF THE PROGRAM EIR

The following information is a discussion of the purpose, advantages and applicability of a focused Program EIR. Since the "focused" nature of the EIR was discussed previously in Section 2.2, this section shall describe the "programmatic" nature of this EIR.

2.5.1 Purpose of Program EIR

As mentioned earlier, this document and its appendices will serve as a focused Program EIR for the proposed project. The purpose of a "program" EIR is to cover a series of actions that are characterized as one large project. The CEQA Guidelines, Section 15168(a), specify that a Program EIR may be justified if one of four criteria can be met by the proposed project. The proposed project meets three of these criteria.

- The proposals within the Circulation Element will be geographically related,
- The proposals are logical parts in a chain of contemplated actions (review of Circulation Element and EIR, permits for roadway improvements, etc.), and
- The Circulation Element deals with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program.

2.5.2 Advantages of Program EIR

The advantages of preparing a program EIR, as specified in Section 15168(b) of the CEQA Guidelines are as follows:

- Provides for a more exhaustive review of effects and alternatives than would occur for an individual project,
- Provides a better overview of cumulative impacts,

- Avoids duplicate reconsideration of basic policy decisions,
- Allows the Lead Agency to consider broad policy alternatives and program-wide alternatives, and
- Allows for a reduction in paperwork.

2.5.3 Application of Program EIR

When future activities, such as a road widening or extension, are reviewed by the City, the proposal will be evaluated against the Program EIR in order to determine if additional environmental documentation is needed. If the proposed activity would have environmental impacts that were not examined in the program EIR, a new initial study would be prepared. The findings of this initial study would lead to either a Negative Declaration or EIR.

2.5.4 Terminology

In the other sections of this EIR, the term "EIR" will be used to refer to this document as a focused Program EIR.

2.6 AVAILABILITY OF THE DRAFT EIR FOR THE CITY OF COLTON CIRCULATION PLAN

The Draft EIR for the City of Colton Circulation Plan is being distributed directly to numerous public agencies and interested persons for comment during the formal Draft EIR review period. These documents are also available to the public for review at the following locations during the review period:

The City Planning Commission will receive public input on the project at a hearing before making a recommendation to the City Council on whether to approve the plan. Public comment is encouraged at all project public hearings before the Planning Commission and City Council. Information concerning the EIR public review schedule and Planning Commission/City Council agendas concerning this item can be obtained by calling the City of Colton Planning Department at (714) 370-5079.

3. Project Description

SECTION 3 - PROJECT DESCRIPTION

3.1 INTRODUCTION

All cities are required by State Law (Government Code 65300, et. seq.) to prepare and adopt a general plan to guide and facilitate future development within their planning area. One of the required elements to be included in a city's general plan is the circulation element. This element, by definition, is to be "correlated with the land use element and identifies the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities."

The proposed project is the updated Circulation Element for the City of Colton. State law requires that cities periodically review and update the various elements within their General Plan to insure that each element reflects the current situation within the community and current laws and statutes. This element is a revision of the Circulation Element contained in the City's 1987 General Plan. The Land Use Element upon which this update is based is from the 1987 General Plan, as revised periodically by the City in the ensuing years.

In the analysis presented in this EIR, the basic premise used is that the updated Circulation Element is correlated to, and responsive to the goals, policies and plans contained within the City's existing Land Use Element. This infers that the goals and policies within the Circulation Element are not growth inducing, but are instead a comprehensive response to existing plans for growth within the planning area.

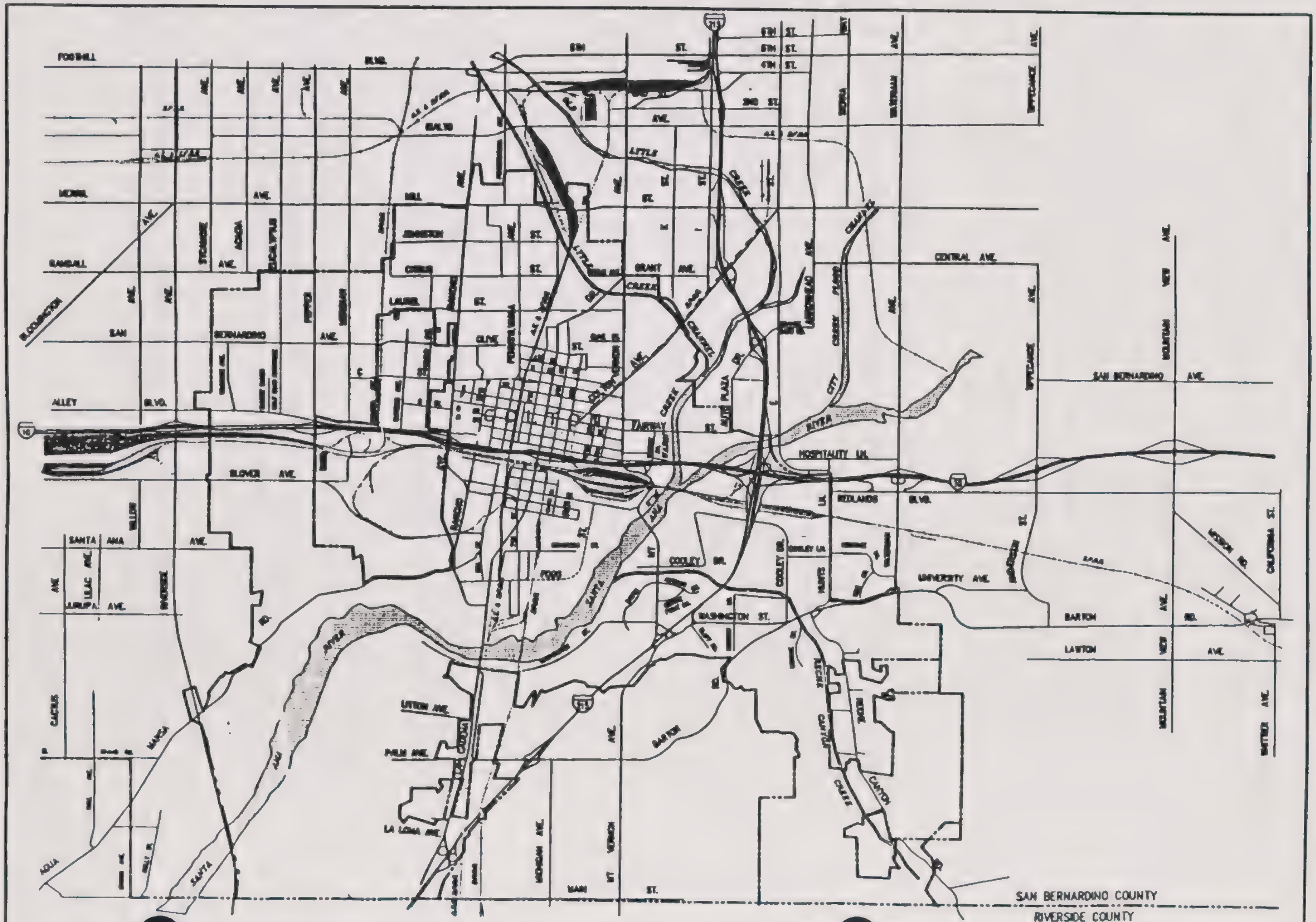
The remaining portions of this section provide a brief summary of the project site and the updated Circulation Element. Since this EIR is being bound in with the Circulation Element, and the two documents use shared appendices, further details on the project can be found in the Element itself.

3.2 PROJECT SITE

The City of Colton (planning area) is located in western San Bernardino County, south and west of the intersection of Interstates 10 and 215, and located between the Cities of San Bernardino and Riverside (see Figures 3.2-1 and 3.2-2). The planning area presently encompasses approximately 17.6 square miles, and is projected to continue its rapid growth over the next twenty years. Colton's current population of 42,100 is expected to grow to over 80,000 by the year 2010. The planning area is bounded by the following cities:

- San Bernardino (San Bernardino County) on the north and east. San Bernardino is a city of over 100,000 persons, and impacts both local and regional traffic links in Colton.
- Loma Linda (San Bernardino County) on the east. Loma Linda is a developing community that also heavily utilizes the circulation system within Colton.

Figure 3.2-1
Regional Location



LEGEND

CITY LIMIT

Figure 3.2-2
Planning Area

Chambers Group, Inc.

- Grand Terrace (San Bernardino County) on the south. Grand Terrace is a recently incorporated city that impacts Colton's southerly local system, as well as the regional roadway system running through Colton.

- Riverside (City and County) on the south. Riverside County lands lie immediately south of Colton, with the City of Riverside located about a half mile south of Colton. The City of Riverside has a current population of over 200,000, and has a heavy impact on regional circulation on I-215.

- Rialto (San Bernardino County) located to the west. Rialto is a rapidly growing city with over 70,000 persons, and impacts both local and regional traffic links within Colton.

3.3 PROJECT DESCRIPTION

The purpose of the Colton Circulation Element, as stated within the draft element, is as follows:

- The purpose of the Circulation Element is to provide for the safe, convenient and efficient circulation system for the City. In order to meet this objective, the Circulation Element has been designed to accommodate the anticipated transportation needs based on the estimated intensities of various land uses within the region. This element describes the extent of physical improvements needed to accommodate anticipated population growth and also introduces other techniques (e.g., restricted street parking, transportation system management plans and congestion management plans) which can be used to improve and maintain an acceptable Level of Service for the City's circulation system.

- The element is also intended to serve as a basic plan for other infrastructure systems such as sewer lines. As the State's General Plan Guidelines indicate, the Circulation Element is actually an infrastructure plan which "concerns itself with the circulation of people, goods, energy, water, sewage, storm drainage and communications." The infrastructural components of the Circulation Element, such as sewer, water, energy, storm drains, and communications, will reference existing, approved plans and policies. This element will not propose changes to these existing plans.

In order to satisfy the purpose statement above, the Circulation Element was divided into four components:

- **Introduction.** This section includes a description of the Element's purpose and related plans and programs.

- **Goals and policies.** These statements set the framework for how the City intends to improve the circulation system within and around Colton.

- **Circulation plan.** Contains a discussion of existing conditions and future standards, including required roadway and intersection improvements. Also addressed are alternative modes of transportation, such as mass transit and bicycle facilities and programs.

- **Implementation program.** The portion of the Element contains implementation programs designed to meet the goals and policies discussed.

3.3.1 Goals and Policies

Under the goals and polices discussion, the Circulation Element contains four major goals:

- Develop a transportation system that is safe, convenient, efficient and provides adequate capacity to meet local and regional demands.

- Encourage the use of alternative transportation modes.

- Separate vehicular traffic associated with commercial, manufacturing and agricultural uses from residential neighborhoods.

- Ensure the provision of adequate off-street parking for all land uses.

3.3.2 Existing Conditions and Future Standards

In determining the existing conditions within the City for circulation, the Circulation Element looks at existing rights-of-way, lanes available, traffic controls, existing average daily traffic, and existing intersection peak hour levels of service.

In determining future standards, the Circulation Element included internal growth, as projected by the Colton General Plan, as well as external circulation growth in the region. This information was used as input to the City's SCAG RIV-SAN circulation model by traffic zone. For modeling purposes, the Circulation Element uses a forecast year of 2010.

Based on the existing conditions and future demands, the Circulation Element identified four basic components. These components, and their sub-topics are:

- **Roadway Component**
  - Functional Roadway Classification System
  - Roadway Cross Sections
  - Freeways and Expressways
  - Primary Arterials
  - Secondary Arterials
  - Collector Streets
  - Local Streets

Freeway Interchanges
Freeway Crossings
Service Levels
Special Intersection Geometrics
HOV Facilities
Truck Routes

- **Public Transportation Component**
  Rail Line/Stations
  Bus Service

- **Bicycle Component**
  Regional Trails
  City Bicycle Routes

- **Infrastructure Component**
  Water System
  Sewage System
  Storm Drain

In determining the adequacy of the existing circulation network, the updated Circulation Element proposes to utilize a Level of Service (LOS) of "E" for all signalized intersections (as defined by the 1985 Highway Capacity Manual - delay methodology). In judging intersection capacity, traffic will need to stay at or below an ICU (Intersection Capacity Utilization) of 1.00. The selection of this service level for the General Plan took into account existing conditions as well as the need to provide a circulation system that can handle future growth.

Using the proposed LOS "E" rating, an evaluation of existing traffic levels found that four intersections within the planning area currently do not meet this standard. These intersections are:

- Mt. Vernon Avenue @ Washington Street (AM and PM peak hour)

- Reche Canyon Road @ Hunts Lane/Barton Road (PM peak hour only)

- Hunts Lane/Redlands Boulevard @ Steel Road (PM peak hour only)

- Waterman Avenue @ Barton Road (PM peak hour only)

3.3.3 Implementation Programs

Upon completion, the Circulation Element will include a set of implementation programs designed to help the City reach the goals and policies outlined in the updated element. The following items will comprise the implementation program for the updated Circulation Element:

- **Master Plan of Streets.** This includes City/Regional Circulation, Transportation System Management (TSM) and Transportation Demand Management (TDM).

- **Public Transportation Plan.** This covers bus service and commuter rail.

- **Non-Motorized Transportation.** This includes pedestrian and bicycle transportation.

- **Parking.** This covers off-street requirements.

- **Truck Routes.** Truck routes will be designated, signed and improved to accommodate truck traffic.

- **Infrastructure.** This covers the provision and maintenance of domestic and irrigation water, sewage and storm drain systems.

4. Environmental Impacts Analysis

SECTION 4 - ENVIRONMENTAL IMPACTS ANALYSIS

This section evaluates the environmental impacts which will occur should the project be implemented as proposed. Both short-term effects, generally associated with project construction, and long-term impacts, associated with project buildout, are evaluated. The issues covered in this section were identified as potentially significant in the Initial Study prepared for the project (see Appendix H). Section 2.2 goes into further detail about the scope of this focused Program EIR.

This section can be divided into two separate parts. The first part, Section 4.1, discusses the environmental resources not evaluated in detail in this EIR. As stated in Section 2.2, this is a focused Program EIR that evaluates only the resources found to have the potential to be significantly impacted by the proposed project.

The second part, Section 4.2 through 4.4, analyze the environmental impacts to the three resource areas identified as having potentially significant impacts. These resources are: Circulation/Transportation, Air Quality, and Noise. For each of these resources, the environmental analysis will be discussed in four parts as follows:

- **Environmental Setting.** Included is a discussion of the existing conditions, services and physical setting of the planning area and the surrounding region as appropriate.

- **Environmental Impact Assessment.** An analysis which covers the project's short- and long-term impacts in a quantitative and qualitative manner. The criteria used to establish the significance of an impact are also presented. Since this is a programmatic document, methods for assessing the significance of future actions is also presented.

- **Mitigation Measures.** Measures are proposed to reduce the identified significant impacts to insignificant levels where possible. Since this is a programmatic document, other mitigations that can be used to reduce the magnitude of an adverse impact are also provided.

- **Residual Environmental Impacts.** The effectiveness of mitigation measures in reducing environmental impacts are summarized in this section. This section will also specify unavoidable significant environmental impacts (i.e., impacts that remain significant after the application of mitigations).

The environmental resources that are evaluated in the remainder of this section are linked to the traffic study prepared for the Circulation Element. Since this traffic study included an evaluation of regional growth in its assessment, the evaluation of impacts to circulation, air quality and noise have built into them an assessment of cumulative impacts.

4.1 RESOURCES NOT ANALYZED IN DETAIL

The Initial Study prepared for this project determined that the proposed project did not have the potential to significantly impact the following environmental resources. This determination is described below. If the project was determined to have a potential adverse, but not significant impact on a given resource, appropriate mitigation measures were included to further reduce the adversity of the impact. Other mitigations for these resources are also included in the EIR for the 1987 General Plan.

4.1.1 Earth Resources

Environmental Setting and Assessment

Most of the City of Colton is relatively flat with hilly terrain in the southern portions of the City. No unique geologic forms are known to exist in the area. Because of the relatively flat topography in most of the planning area, and since roadways in the hills are proposed within existing roadway rights-of-way, only minor changes to existing topography or ground surface relief is expected. During construction of a roadway segment, typical construction practices will limit any short-term erosion to minimal amounts. No significant earth resource impacts are expected.

Mitigations

1) All site specific projects will obtain the necessary grading permits.

2) An erosion control plan will be prepared for each site specific project, and will be reviewed and approved prior to issuance of a grading permit for any portion of the project.

3) Any project impacting 5 or more acres of land will be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit.

4.1.2 Hydrology and Drainage

Environmental Setting and Assessment

According to the City of Colton General Plan Final EIR (May 5, 1987), Flood Insurance Maps (FIRM) for Colton indicate that approximately 1,500 acres are subject to inundation from a 100-Year storm. Approximately 1,000 acres adjacent to the Santa Ana River are subject to severe flooding. Implementation of the Circulation Element will have a beneficial impact on the hazards of flooding by providing an efficient storm drain system city-wide to convey flood waters away from properties therefore, protecting property during times of flooding.

Implementation of roadway improvements will cover soils with an impermeable surface resulting in an increase in runoff. This could incrementally increase the quantity of runoff entering the Santa Ana River

and reduce infiltration to groundwater resources. Additionally, implementation of the proposed plan may have a slight effect on the surface water quality as a result of surface contaminants which are deposited by vehicles travelling on the roadways and then washed off during rains and any on-site grading. However, the regionally small addition of impervious surface will not create a significant increase in quality and quantity of surface runoff.

The Circulation Plan proposes to expand seven bridges and build one new bridge. Two of the bridge expansions will involve Lytle Creek and Santa Ana River. These activities may require a federal permit issued by the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act, 33 U.S.C. Section 1344, and Section 10 of the Rivers and Harbors Act of 1899, 33 U.S.C. Section 403 and a stream alteration agreement (1601) from the California Department of Fish and Game.

No significant impacts are expected to hydrology and drainage. The following mitigation measures further reduce any adverse but not significant impacts from surface runoff.

Mitigations

4) Runoff control measures shall be utilized where necessary to maximize the control of runoff during construction including; temporary seeding, mulching and vegetative buffer strips.

5) The City will comply with state and federal permitting programs for roadway or bridge improvements that involve alterations of streambeds or impact on waters of the United States. Further environmental assessment may be necessary prior to obtaining these permits.

6) All flood control improvements will be reviewed and approved by the San Bernardino County Flood Control District.

4.1.3 Land Use

Environmental Setting and Assessment

Implementation of the proposed plan is deemed necessary to facilitate the development proposed in the City's current Land Use Element through the Year 2010. The new roadways and other infrastructure planned in the Circulation Element are proposed in response to the land uses planned by the City of Colton (Land Use Element) and surrounding communities, and are therefore not considered to be growth inducing. The Circulation Element is also consistent with the City of Colton General Plan and its elements.

When the Initial Study was released, the preliminary draft of the Circulation Element proposed new cross-section designs that would have required the acquisition of land to fit the expanded rights-of-way. This widening had the potential to encroach rights-of-way into developed areas, and therefore have a potentially significant land use impact. The draft Circulation Element now being considered does not propose to expand any right-of-way. Although certain streets will be widened, this widening will be

done within existing right-of-way. Therefore, no impacts are expected to the City's housing stock or other land uses.

Mitigations

No new mitigations were identified.

4.1.4 Public Services and Utilities

Environmental Setting and Assessment

Implementation of the proposed plan is not expected to negatively impact fire protection, police, schools, parks, and recreational facilities. Implementation of the plan may even benefit fire protection and police services by providing more efficient movement through City streets.

The City of Colton Public Utilities Department provides and maintains the City's domestic water services and sewage system, and the City's Public Works Department does the same for the storm drain system. The current water, sewer, and storm drain master plans for the City indicate that these utilities will be adequate to serve the demand projected to occur under the current General Plan's buildout. These plans have been incorporated into this Circulation Element by reference, and no changes to the plans has been proposed.

Some relocation of above and below ground utilities may be necessary in order to accommodate wider pavement widths (within the existing right-of-way) or new grade requirements. The necessity of these relocations is not currently known, and will not be known until the engineering phase of development. It is not expected that these relocations will pose a significant impact on existing utilities. Drainage improvements incorporated in the Circulation Element will have a beneficial impact on the storm drain system, and will eliminate nuisance water and some localized flooding. Implementation of the proposed plan will not have a significant impact on public services and utilities.

Mitigations

7) All impacted utilities will be contacted for coordination purposes prior to construction.

8) The police and fire departments will be notified of any proposed land closures or detours of traffic.

9) If above ground utilities require relocation, these utilities will be placed underground in accordance with City policy.

10) Roadway median and right-of-way landscaping shall utilize reclaimed water as it becomes available.

4.1.5 Biological Resources

Environmental Setting and Assessment

Areas that may be landscaped as a result of the implementation of the proposed plan are expected to be relatively small and are not expected to impact vegetation or wildlife in the greater Colton area. Since the proposed roadways will be in urbanized areas, the introduction of non-native landscaping will not be a significant impact.

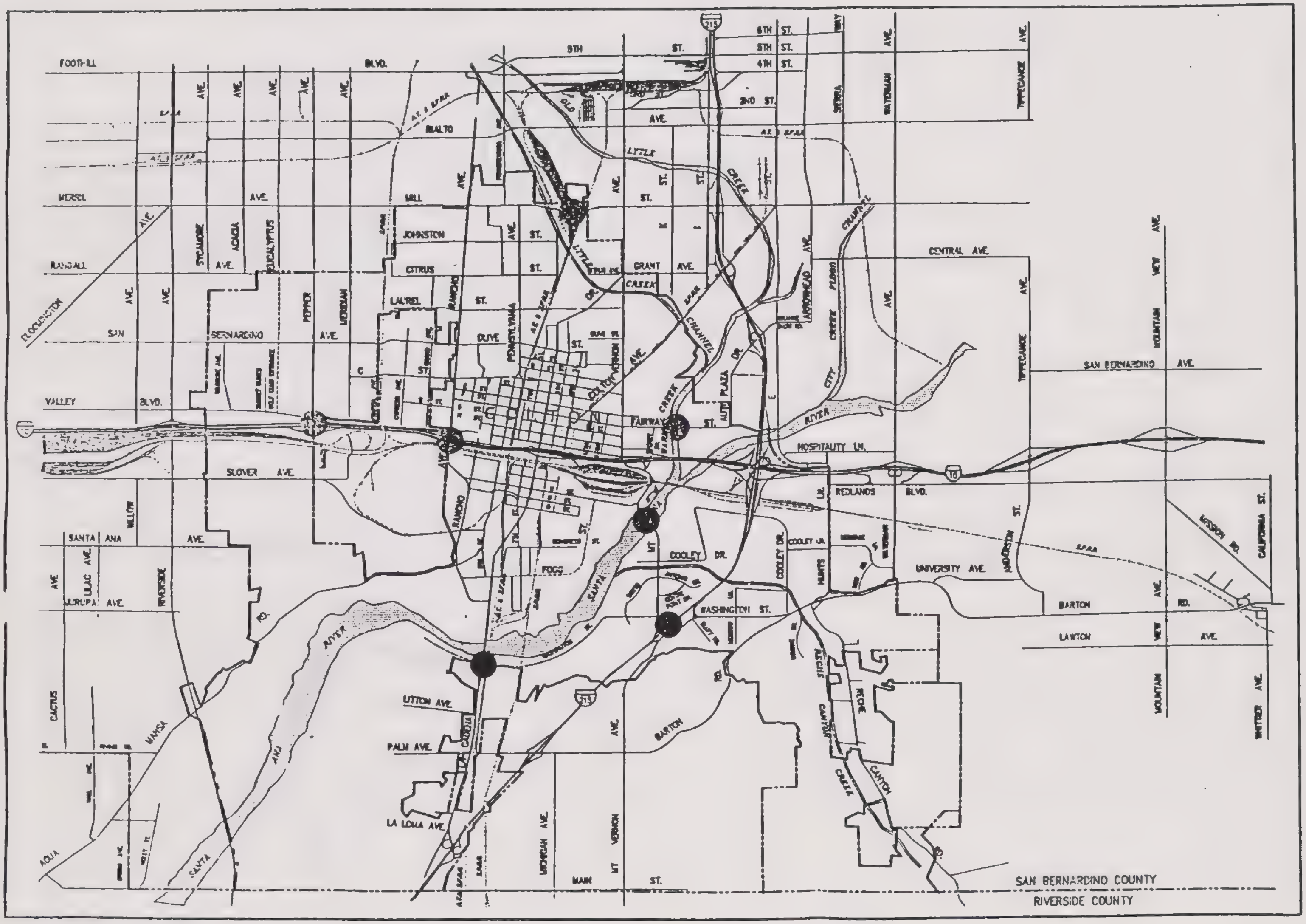
The proposed Circulation Element does propose the extension of existing roadways into areas not currently developed (see Figure 4.1-1). In areas that are vacant open space, there may be an impact on native plant and wildlife species through construction impacts when building new roadways, bridges, and sewer and water lines. This could include the reduction of unique, rare or endangered plant and/or animal species. Construction activities will eliminate those insects, small rodents and reptiles that do not have the ability to flee the construction sites. These impacts can not be fully assessed at this stage since the actual alignments shown in the Circulation Element are preliminary, and final alignments are not currently known.

Widening of bridges in the Santa Ana River and/or Lytle Creek could also have an impact on sensitive plant and wildlife habitats (see Figure 4.1-2). These activities may require a federal permit issued by the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act, 33 U.S.C. Section 1344, and Section 10 of the Rivers and Harbors Act of 1899, 33 U.S.C. Section 403 and a stream alteration agreement (1601) from the California Department of Fish and Game.

Specific impacts to biological resources can not be fully identified in this program EIR due to the lack of actual alignments. Individual projects may require specific biological assessments prior to site disturbance.

Mitigations

11) Prior to issuance of grading permits and prior to any physical disturbance of any natural drainage course, Blue Line Stream or any wetland determined to contain riparian vegetation, that City (or applicable applicant) will obtain a Streambed Alteration agreement or permit, or a written waiver of the requirement for such a permit or agreement from both the California Department of Fish and Game and the U.S. Army Corps of Engineers. Written verification of such a permit or waiver shall be kept on file with the City of Colton Department of Public Works. Site specific biological studies may be necessary prior to disturbing the project site in order to obtain the above waivers/permits.

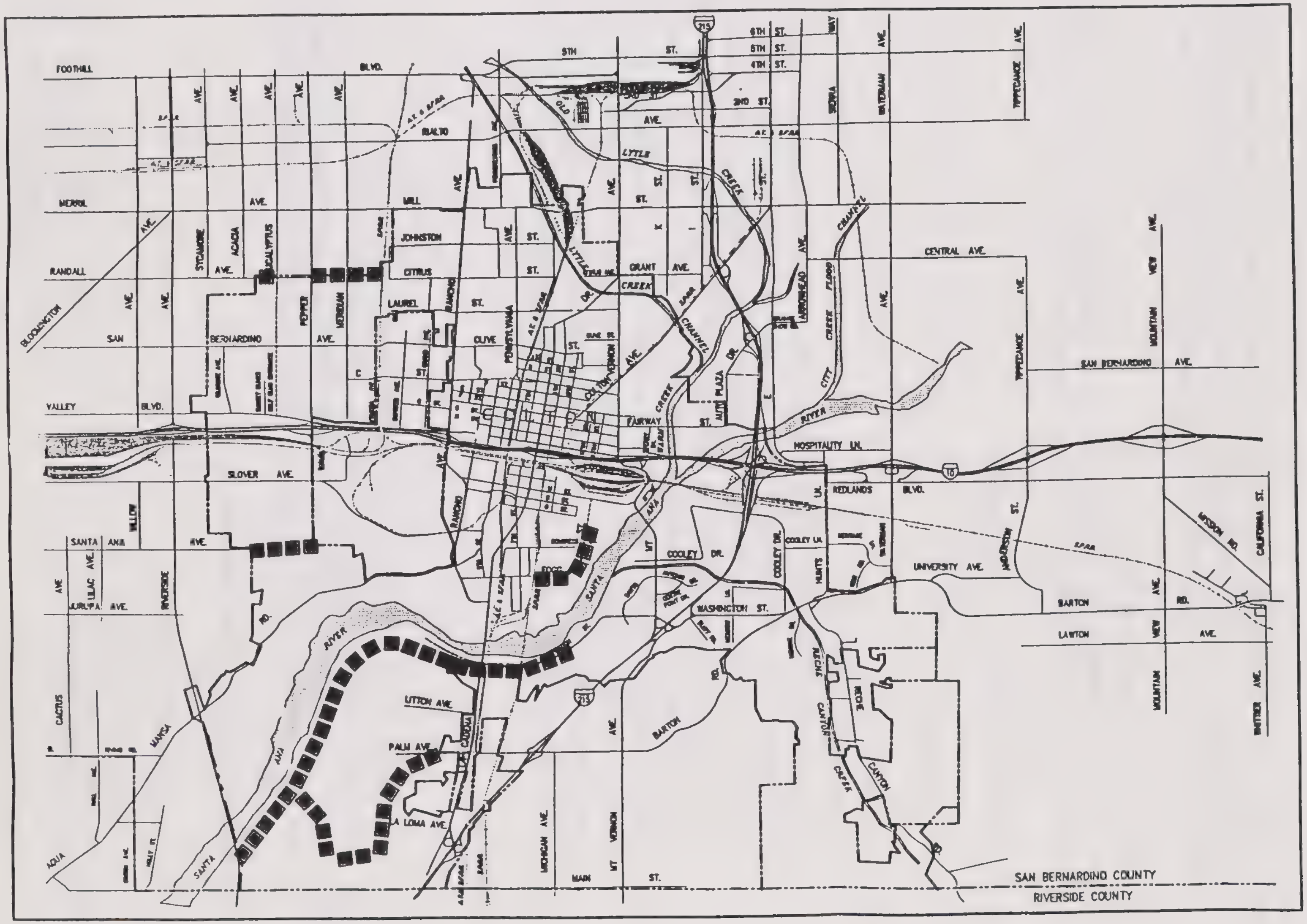


Bridges to be Widened

Figure 4.1-2
Bridge Widening Projects

Chambers Group, Inc.

north



Roadway Extensions

Figure 4.1-1
Roadway Extensions

Chambers Group, Inc.

north

4.1.6 Cultural Resources

Environmental Setting and Assessment

Implementation of the proposed plan may have an impact on prehistoric and/or historical sites or resources on a site specific project-by-project basis. Specific impacts to cultural resources can not be fully identified in this program EIR due to the lack of precise alignments of the proposed roadways. Individual projects will require specific cultural resource assessments.

Mitigations

12) If archaeological, paleontological or historic resources are uncovered during excavation or construction activities at the project site, work in the affected area will cease immediately and a qualified person with appropriate expertise shall be consulted by the applicant regarding mitigation measures to preserve or record the find. Recommendations by the consultant shall be implemented as deemed necessary and feasible by the Community Development Director before work commences in the affected area. if human remains are discovered, work in the affected area shall cease immediately and the County Coroner shall be notified. if it is determined that the remains might be those of a Native American, the California Native American Heritage Commission shall be notified and appropriate measures provided by State law shall be implemented.

4.1.7 Aesthetics

Environmental Setting and Assessment

The proposed roadways improvements and extension are part of the development planned for in the City's Land Use Element, and the development of these roadways is not expected to impact measurably on the aesthetic resources in the area.

Implementation of the proposed project will require the installation of street lighting into currently undeveloped areas, but these improvements are in keeping with planned and existing development in the planning area. Only minor, short-term impacts on aesthetic resources related to construction are expected.

Mitigations

No new mitigations were identified.

4.2 CIRCULATION/TRANSPORTATION

4.2.1 Environmental Setting

The following is a summary of the existing circulation system conditions found within the planning area. This summary is based on the detailed information presented in the Circulation Element and in Appendices A through G.

Level of Service Definition

In order to evaluate the operating conditions of the current and future circulation system, the concept of Level of Service (LOS) is used. An LOS is a measure of the effect on traffic flow of factors such as speed, interruptions to traffic flow, and the driver's freedom to maneuver. There are six LOS ratings, LOS "A" through LOS "F", each associated with two measurements. The first is a measurement of how long each driver is delayed on average at a signalized intersection. The updated Circulation Element considers delays of up to 60 seconds per vehicle as acceptable. The second measure used is a volume to capacity measurement at each intersection. The updated Circulation Element allows up to 0.95 (95%) of total capacity to be used before a significant impact on circulation is determined to exist. Table 4.2-1 provides a list of the six ratings and their associated definitions.

Intersection Analysis

Using the proposed LOS "E" rating described above, four existing intersections within the planning area were found to not meet this standard based on the delay methodology. These intersections are:

- Mt. Vernon Avenue @ Washington Street (AM and PM peak hour)
- Reche Canyon Road/Hunts Lane @ Barton Road (PM peak hour only)
- Hunts Lane @ Redlands Boulevard/Steel Road (PM peak hour only)
- Waterman Avenue @ Barton Road (PM peak hour only)

Bicycle Circulation

Existing city bicycle routes are found on Riverside Avenue, Valley Boulevard, Rancho Avenue, Vernon Avenue, and Washington Street. Two proposed regional multi-purpose trails, commissioned by the San Bernardino County Department of Parks and Recreation, will pass through the Colton City limits. These trails, the Santa Ana River regional trail and the Reche Canyon trail, will accommodate bicycle, equestrian and pedestrian usages. The Santa Ana River regional trail will parallel the Santa Ana River. The Reche Canyon trail will follow Reche Canyon Creek through Reche Canyon and the Cooley Ranch.

Table 4.2-1

LEVELS OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service	Stopped Delay Per Vehicle (Seconds)
A	5.0
B	5.1 to 15.0
C	15.1 to 25.0
D	25.1 to 40.0
E	40.1 to 60.0
F	60.0
Level of Service A describes operations with very low delay, i.e., less than 5.0 seconds per vehicle. This occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	
Level of Service B describes operations with delay in the range of 5.1 to 15.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A causing higher levels of average delay.	
Level of Service C describes operations with delay in the range of 15.1 to 25.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level although many still pass through the intersection without stopping.	
Level of Service D describes operations with delay in the range of 25.1 to 40.0 seconds per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	
Level of Service E describes operations with delay in the range of 40.1 to 60.0 seconds per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.	
Level of Service F describes operations with delay in excess of 60.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	

Figures 4a and 4b in the Circulation Element show the existing and proposed trails within the planning area.

Public Transportation

Bus service is provided to the City of Colton by Omnitrans, which has existing bus routes throughout the City and San Bernardino County. Figure 5a and 5b in the Circulation Element show the current Omnitrans bus routes and park and ride facilities in the planning area. The Southern Pacific Railroad and the Santa Fe Railroad transect the City in both east-west and north-south directions.

Infrastructure

The City of Colton Public Utilities Department provides and maintains the City's domestic water services, sewage system, and storm drain system. The current water, sewer, and storm drain master plans for the City indicate that these utilities will be adequate to serve demand expected under buildout conditions. The updated Circulation Element proposes no changes to the existing infrastructure plans currently approved for the City.

4.2.2 Environmental Impact Assessment

Impact Significance Criteria

A significant impact on circulation/transportation resources was determined to exist if the goals and policies set out in the Circulation Element could not be achieved.

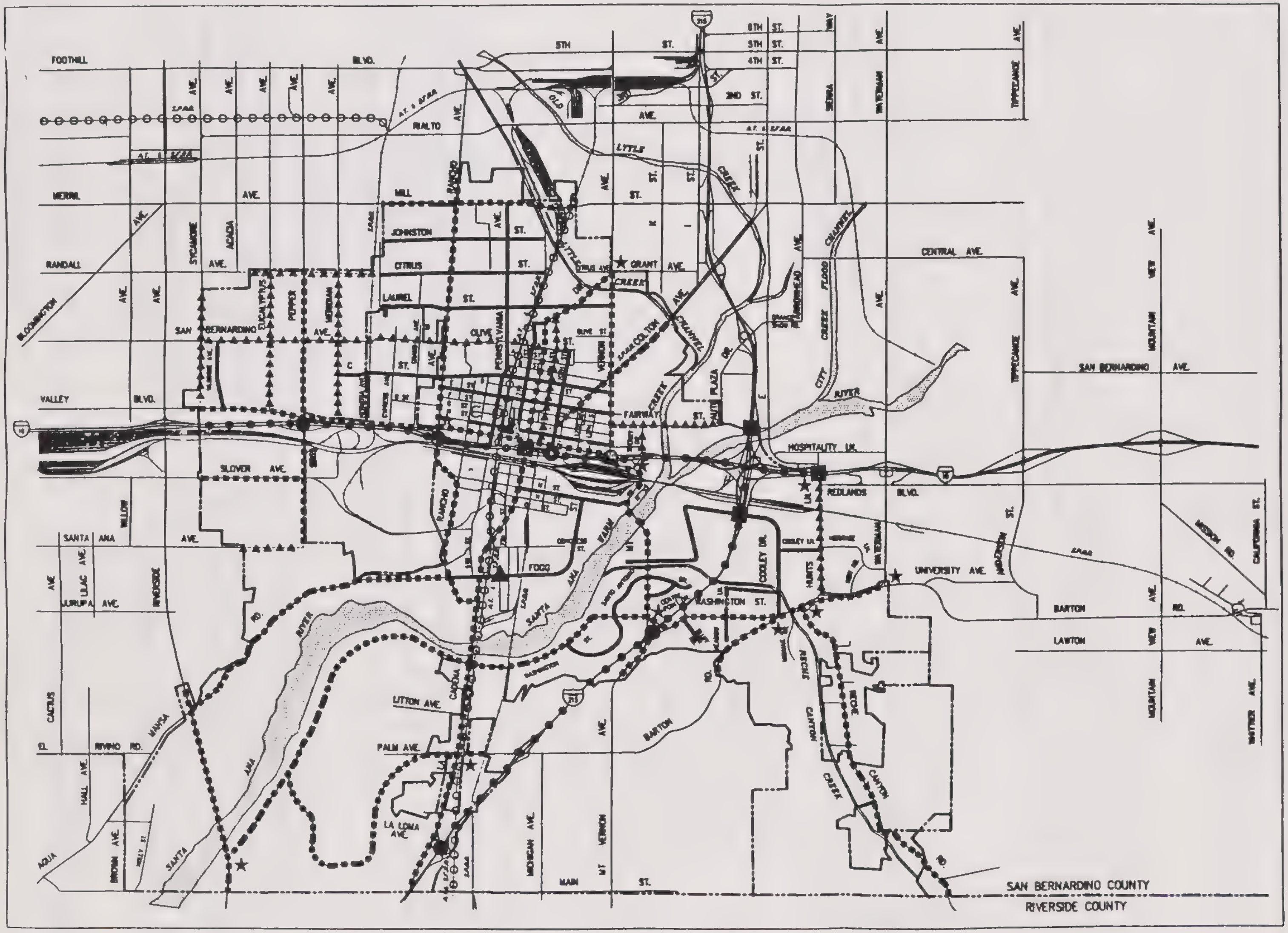
The most quantifiable measurement of significance relates to traffic congestion. The Circulation Element (Service Levels, pages 16-17) sets two policy guidelines for determining "acceptable" levels of traffic. A significant impact to circulation/transportation resources is determined to exist if one or both of the following two events are found to be true:

- A LOS "F" is found for any study intersection.
- The future volume to capacity ratio (Intersection Capacity Utilization, ICU) is greater than 1.00.

Environmental Impacts

<u>Roadways</u>

The proposed Circulation Plan, shown in Figure 4.2-1, has been developed to safely and adequately accommodate the traffic generated as a result of buildout of the Proposed Land Use Plan. The Circulation Plan consists of a street system, street improvements, and other transportation



CITY LIMIT
FREEWAY/EXPRESSWAY
MAJOR ARTERIAL
SECONDARY ARTERIAL
COLLECTOR
RAIL TRANSIT LINE (METROLINK)
RAIL TRANSIT STATION
EXISTING INTERCHANGE
PROPOSED INTERCHANGE
EXISTING FREEWAY CROSSING
PROPOSED FREEWAY CROSSING
SPECIAL INTERSECTION GEOMETRICS

Figure 4.2-1
Circulation Plan

Chambers Group, Inc.

north

techniques. The ability to finance major infrastructure improvements is one factor effecting the success of the Circulation Plan. Another factor is the City's efficiency in reviewing all development and requiring specific conditions which carry out the appropriate Circulation Element policies. Peak-hour and intersection level of service impacts should be examined for each proposed project. The City can then adopt specific conditions which will assure smooth traffic flow such as additional turn lanes, traffic signalization, adequate off-street parking, and traffic management plan.

In order to project future conditions in the Year 2010, the Circulation Element looked at approved and potential development projects known to the City, as well as growth estimated under the existing General Plan. This data was then allocated to the traffic model's traffic analysis zones (TAZ) for use in forecasting future conditions. The following is a summary of projected development by land use type that was included in the traffic model:

- 1,151 single-family dwelling units
- 203 multi-family dwelling units
- 465,000 square feet of commercial/retail space
- 120,000 square feet of office space
- 177,500 square feet of industrial space
- 888,000 square feet of hospital space
- 158,000 square feet of storage facilities

Using a background growth rate plus the above development plans, the LOS for signalized intersections were projected for the Year 2010 for both the with and without project conditions. The without project case projected future conditions utilizing improvements that correspond to the existing Circulation Element. Table 4.2-2 shows the intersections that were found to exceed the significance criteria defined above.

Table 4.2-2 also shows that the proposed project greatly reduces traffic impacts within the planning area. Without the project, 17 intersections have significant impacts due to high LOS, ICU or both. With the proposed project, conditions will greatly improve, although one intersection will remain significantly impacted.

Bicycle Circulation

The Bicycle Route Master Plan (Figures 4a and 4b in the Circulation Element) indicates seven future bicycle routes and eight proposed bicycle routes. A few of the proposed routes are extensions of existing bicycle routes, with the other new routes greatly adding to both local and regional bicycling. These additions should increase the viability of bike travel in the City of Colton, and also for those passing through the City to other destinations. These changes will facilitate increases in cycling as an alternative mode of transportation, which will help reduce motorized traffic and the associated air quality impacts.

Table 4.2-2

YEAR 2010 INTERSECTION LEVELS OF SERVICE

INTERSECTION	WITHOUT PROJECT				WITH PROJECT			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU
Pepper Ave. @ San Bernardino St./Olive St.	C	0.80	F	1.24	C	0.65	C	0.65
Pepper Ave. @ Valley Blvd.	F	1.70	F	1.30	D	0.92	E	0.97
Pepper Ave. @ I-10 Westbound	D	1.02	F	1.21	C	0.83	C	0.86
Pepper Ave. @ I-10 Eastbound	F	1.16	D	1.01	B	0.47	C	0.85
Rancho Ave. @ Valley Blvd.	B	0.75	F	1.12	C	0.79	E	0.98
Rancho Ave. @ I-10 Westbound	C	0.93	F	1.19	C	0.78	C	0.79
Rancho Ave. @ I-10 Eastbound	C	0.85	F	1.18	C	0.69	D	0.91
La Cadena Dr. @ Rancho Ave.	F	1.21	F	1.65	C	0.75	C	0.86
La Cadena Dr. @ Barton Rd.	E	1.16	B	0.71	D	0.83	D	0.90
La Cadena Dr. @ I-215 S/B Offramp	C	0.88	D	1.02	B	0.63	C	0.84
La Cadena Dr. @ I-215 Northbound	B	0.73	D	0.99	B	0.52	B	0.71
Mt. Vernon Ave. @ La Cadena Dr./Grant Ave., Citrus St.	D	0.77	F	1.07	C	0.69	D	0.82
Mt. Vernon Ave. @ Washington St. (w/o I-215)	C	0.89	F	1.29	C	0.69	C	0.84
Washington St. @ Barton Rd./Cooley Dr.	C	0.76	F	1.13	B	0.49	C	0.87
Washington St. @ Reche Canyon Rd./ Hunts Ln.	B	0.69	C	0.97	C	0.74	E	1.01
Redlands Blvd./Steel Rd. @ Hunts Ln.	E	1.02	F	1.31	D	0.95	D	0.94
Washington St. @ Waterman Ave.	F	1.21	F	1.15	C	0.75	C	0.72
Slover Ave. @ Pepper Ave.	C	0.77	E	1.01	C	0.73	C	0.85
Agua Mansa Rd. @ Riverside Ave.	B	0.82	F	1.13	B	0.72	C	0.91
Washington St. @ Riverside Ave.	n/a	n/a	n/a	n/a	B	0.76	D	0.98

Shaded cells represent an excedence of the significance criteria (LOS = "F" and/or ICU > 0.95).

Public Transportation

The City of Colton does not have direct control over the allocation of buses or location of routes utilized by OMNITRANS. The Circulation Element does contain policies aimed at helping to encourage and facilitate the use of buses in the City.

Two new rail commuter lines will be established utilizing the existing Southern Pacific Rail line which parallels I-10 and Santa Fe Rail line adjacent to La Cadena Drive providing service to Los Angeles and Orange County, respectively. The provisions of these commuter lines and the expansion as needed of bus routes will contribute to the reduction of automobile traffic and the associated air quality impacts on a regional basis.

The Circulation Element provides for the improvement of public transportation, and the goals and policies presented are aimed at this improvement. No adverse or significant impacts are projected to occur to public transportation as a result of this plan, in fact, beneficial impacts are expected.

Infrastructure

The proposed Circulation Element does not propose to alter the existing approved water, sewer and storm drain master plans currently used by the City. The existing master plans are adequate to cover the needs of existing and future development within the City, and have previously been reviewed environmentally. These plans are only incorporated into this element for consolidation purposes, and do not result in any new environmental impacts that were not previously mitigated.

4.2.3 Mitigation Measures

13) Analyze peak-hour intersection LOS and ICU levels for each proposed project that will impact the intersection of Washington Street at Reche Canyon Road/Hunts Lane. Projects shown to impact this intersection shall take additional measures to reduce trip generation, such as increased car pooling requirements, off-peak work schedules for employees, reduced densities, etc. Mitigation measures shall be included in the project traffic study, and shall demonstrate a percentage reduction in traffic congestion based on that project's contribution to total future demand at that intersection.

14) Require that new development maintain consistency with the adopted circulation plan.

15) The City shall coordinate with OMNITRANS prior to approval of any discretionary approval to determine if a bus turnout or stop is needed at the project site.

4.2.4 Residual Environmental Impacts

With the implementation of the described mitigation measures, no significant impacts will occur.

4.3 AIR QUALITY

4.3.1 Environmental Setting

Meteorology/Climate

Local climatic conditions in the project area are characterized by warm summers, mild winters, infrequent rainfall, limited daytime on-shore breezes and comfortable humidities. The San Bernardino/ Colton area, in general, is situated such that pollutants generated in the Los Angeles Basin undergo photochemical reactions and then they move inland where they "stack-up" against the foothills of the San Bernardino Mountains during the daily sea breeze cycle. The resulting smog at times give the San Bernardino/Colton area some of the worst air quality in California.

Temperatures in the Colton area average about 64°F, with average summer temperatures in the mid-70s and winters in the low-50s. Rainfall averages around 15 inches per year. To contrast a very steady pattern of temperature, rainfall is seasonally and annually highly variable, with almost all rain falling between November and April.

Wind patterns across Colton display a very unidirectional on-shore flow from the southwest that is strongest during the summer. A weaker off-shore return flow, which approaches the City through the Cajon Pass to the northwest, is strongest in the winter nights when the land is colder than the ocean. Local topography in the project area may modify these wind patterns to an extent, but the day-night difference should still be very noticeable. The on-shore winds that sweep across the valley average from 8 to 15 mph with the stronger winds occurring during the summer. The off-shore flow is often calm or drifts slowly southwesterly at 3 to 10 mph with winter nights showing the strongest effects. Thus, during the daytime, any basin-generated air emissions are transported northeastward toward the City. The drainage winds have the potential for localized stagnation, but these winds have their origin in the San Gabriel Mountains where background pollutant levels are low, such that any localized contributions do not create unhealthful impacts.

In conjunction with the two characteristic wind regimes that affect the rate and orientation of horizontal pollutant transport, there are two types of temperature inversions that control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The combination of winds and inversions are thus critical determinants in leading to the highly degraded air quality in summer, and the generally good air quality in winter in the Colton area.

Air Quality Setting

Ambient Air Quality Standards (AAQS)

Air quality impacts of a proposed project, combined with existing background air quality levels, must be compared to the applicable existing ambient air quality standards in order to gauge their significance. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most

susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Those standards currently in effect in California are shown in Table 4.3-1.

Baseline Air Quality

Existing levels of ambient air quality and historical trends and projections in the project area are best documented by measurements made by the South Coast Air Quality Management District air monitoring stations located in the cities of Fontana and San Bernardino. Monitored air pollutants include ozone, carbon monoxide, sulfur dioxide, nitrogen oxides, and particulates including total dust and sulfates. These measurements have shown that photochemical smog levels (mainly ozone) are high in summer with numerous exceedances of the standards and that dust levels exceed particulate standards throughout the year. Conversely, primary vehicular pollutant levels such as carbon monoxide and nitrogen dioxide show no exceedances of the standards. Table 4.3-2 summarizes the last five years of published data for both the Fontana and San Bernardino stations.

Note that the two stations show consistency with regard to photochemical smog (ozone) and its precursor, NOx, but show a wide discrepancy with regard to ambient particulate levels with Fontana showing the higher levels of the two stations. The data in Table 4.3-2 suggest that air quality problems in the project area due to internal production are compounded by the transport of pollutants into the area from outside sources. The area is very sensitive to both ozone and additional particulate pollutant emissions, especially PM-10 particulates (particulate matter that is less than 10 microns, or 0.0004 inches in diameter) since these standards are already frequently exceeded.

Vehicle Emissions

Based on the City of Colton Draft Circulation Element prepared by Mohle, Grover & Associates (MGA), 1,345,764 vehicle miles were traveled on a daily basis in 1987. The document projects that by the year 2010, the vehicle miles traveled on a daily basis will increase to 3,968,053 (a 195 percent increase). When amortized over the 23 year period, the compound rate of growth is approximately 4.8 percent. Based on this compound rate, the 1992 vehicle miles traveled on a daily basis would be 1,701,280. The emissions for this travel were modeled using the EMFAC7PC model distributed by the California Air Resources Board (CARB). Based on the model, Colton vehicle trips are currently generating 19.65 tons of CO, 3.24 tons of NOx, 1.67 tons of reactive organic gases, 0.17 tons of SOx, and 0.35 tons of PM-10 particulate matter per day.

Air Quality Planning

The proposed project is located within the South Coast Air Basin (SCAB), and jurisdictionally, is governed by the California Air Resources Board (CARB). The South Coast Air Quality Management

Table 4.3-1

AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards		Federal Standards		
		Concentration	Method	Primary	Secondary	Method
Ozone	1 Hour	>0.09 ppm (180 ug/m^3)	Ultraviolet Photometry	>0.12 ppm (235 ug/m^3)	Same as Primary Std.	Ethylene Chemiluminescence
Carbon Monoxide	8 Hour	>9.1 ppm (10 mg/m^3)	Non-dispersive Infrared Spectroscopy (NDIR)	≥9.5 ppm (10 mg/m^3)	Same as Primary Stds.	Non-dispersive Infrared Spectroscopy (NDIR)
	1 Hour	>20 ppm (23 mg/m^3)		>35 ppm (40 mg/m^3)		
Nitrogen Dioxide	Annual Average	-	Gas Phase Chemiluminescence	>0.0534 ppm (100 ug/m^3)	Same as Primary Std.	Gas Phase Chemiluminescence
	1 Hour	>0.25 ppm (470 ug/m^3)		-		
Sulfur Dioxide	Annual Average	-	Ultraviolet Fluorescence	0.03 ppm (80 ug/m^3)	-	Pararosoaniline
	24 Hour	0.05 ppm (131 ug/m^3)		0.14 ppm (365 ug/m^3)	-	
Suspended Particulate Matter (PM-10)	Annual Geometric Mean	30 ug/m3	Size Selective Inlet High Volume Sampler and Gravimetric Analysis	-	-	-
	24 Hour	>50 ug/m3		>150 ug/m3	Same as Primary Stds.	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	-	-	>50 ug/m3		
Sulfates	24 Hour	≥25 ug/m3	Turbidimetric Barium Sulfate	-	-	-
Lead	30 Day Average	≥1.5 ug/m3	Atomic Absorption	-	-	Atomic Absorption
	Calendar Quarter	-		≥1.5 ug/m3	Same as Primary Std.	
Visibility Reducing Particles	1 Observation	In sufficient amount to reduce the prevailing visibility to less than 10 miles when the relative humidity is less than 70 percent		-	-	-

*** Prepared in accordance with applicable SCAQMD Air Quality Data Cards and ARB Fact Sheet 38 (revised 7/88).**

Table 4.3-2

AIR QUALITY MONITORING SUMMARY FOR THE FONTANA AND SAN BERNARDINO AIR QUALITY MONITORING STATIONS
(Number of Days Standards Were Exceeded and Maximum Levels During Such Violations)[1]

Pollutant/Standard	1987	1988	1989	1990	1991
Ozone 1-hour ≥ 0.10 ppm (> 0.09 after 1988)	166 165	173 170	159 155	129 132	127 120
Ozone 1-hour > 0.12 ppm	117 116	121 124	115 113	78 92	79 74
Ozone Max. 1-hour conc. (ppm)	0.25 0.29	0.28 0.29	0.30 0.32	0.29 0.27	0.25 0.29
Carbon Monoxide 8-hour ≥ 9.5 ppm	0 0	0 0	0 0	0 0	0 0[2]
Carbon Monoxide 1-hour > 35 ppm	0 0	0 0	0 0	0 0	0 0[2]
Carbon Monoxide 8-hour ≥ 9.1 ppm	0 0	0 0	0 0	0 0	0 0[2]
Carbon Monoxide 1-hour > 20 ppm	0 0	0 0	0 0	0 0	0 0[2]
Carbon Monoxide Max. 1-hour conc. (ppm)	11 6	9 8	11 7	9 6	8 6[2]
Carbon Monoxide Max. 8-hour conc. (ppm)	6.7 4.0	7.57 5.63	8.1 5.8	6.0 4.9	7.0 4.4[2]
Nitrogen Dioxide 1-hour ≥ 0.25 ppm	0 0	0 0	0 0	0 0	0 0
Nitrogen Dioxide Max. 1-hour conc. (ppm)	0.19 0.18	0.19 0.21	0.18 0.18	0.20 0.20	0.16 0.19
Total Suspended Particulates Max. 24-hour conc. (ug/m^3)	271 298	486 564	327 333	289 1,770	215 537
Particulate Sulfate 24-hour ≥ 25 ug/m^3	0 0	0 1	0 0	0 0	0 0
Particulate Sulfate Max. 24-hour conc. (ug/m^3)	17.6 18.7	15.8 28.1	17.8 14.9	17.3 18.3	18.3 20.2

Table 4.3-2

AIR QUALITY MONITORING SUMMARY FOR THE FONTANA AND SAN BERNARDINO AIR QUALITY MONITORING STATIONS
(Number of Days Standards Were Exceeded and Maximum Levels During Such Violations)[1]

Pollutant/Standard	1987	1988	1989	1990	1991
Particulate Lead 1-Month $\geq$ 1.5 ug/m^3	0 NM[3]	0 NM	0 NM	0 NM	0 NM
Particulate Lead Max. 24-hour conc. (ug/m^3) (changed to Max. monthly conc. in 1989)	0.23 NM	0.19 NM	0.09 NM	0.07 NM	0.05 NM
Inhalable Particulates (PM-10)[4] 24-hour > 50 ug/m^3	36/61 38/60	40/56 46/60	44/59 47/61	35/60 43/59	41/60 35/54
Inhalable Particulates (PM-10) Max. 24-hour conc. (ug/m^3)	211 203	289 287	271 227	235 475	163 127

[1] Upper and lower values represent the San Bernardino and Fontana stations, respectively.
[2] Less than 12 full months of data. May not be representative
[3] NM - Not monitored
[4] Violations per number of samples

Source: South Coast Air Quality Monitoring District, Air Pollution Data Monitoring Cards, 1987, 1988, 1989, 1990, 1991

District (SCAQMD) provides technical and monitoring support, as well as an enforcement of District Rules and Regulations. In accordance with the State Lewis-Presley Air Quality Act (1987) and the Federal Clean Air Act Amendment (1977), a revised Air Quality Management Plan (AQMP) was adopted by the governing boards of the AQMD and the Southern California Association of Governments (SCAG) in March of 1989. The AQMP contained far reaching programs to improve air quality. The AQMP, governed by state and federal laws, had the aim of achieving healthful levels of air quality. The overall goal was to improve air quality by 5 percent per year and attain all ambient air quality standards by the Year 2007.

Realizing that the goals of the 1989 AQMP would be unattainable in the referenced time frame, a new AQMP was adopted on July 12, 1991. The new AQMP has many recommended measures that will affect the lifestyle of nearly everyone in the basin. The 1991 AQMP differs from the 1989 AQMP in several ways. The biggest change is in the Growth Management Measure which has been revised to focus on the reduction of vehicle miles traveled rather than the previous jobs/housing balance performance goals. Other changes include implementation of the following measures:

- Extensive use of clean fuels,
- Rapid introduction of clean vehicles,
- Conserving natural gas and electricity,
- Reducing emissions from all sources, and
- Reducing vehicle miles traveled and trips taken.

The goal of the 1991 Plan is to reach federal attainment for CO, NO_2, PM-10, and ozone in the years 2000, 2000, 2006, and 2010, respectively. The State standards for attainment differ from the federal standards with anticipated attainment for CO by 2005, NO_2 in 2000, and PM-10 and ozone past 2000.

Within the Final 1991 AQMP is a list of strategies designed to improve the air quality throughout the region. These measures examine long-range solutions to area-wide air quality concerns. Measures within the AQMP are divided into three classifications including: Tier I (present technology), Tier II (advanced technology), and Tier III (new technology). Control measures within each tier are grouped into several categories all intended to reduce emissions from specific sources or activities. These categories include stationary point sources, transportation-related and land-use related sources, indirect sources, stationary area sources, mobile sources, and off-road mobile sources.

Consistent with the AQMP, the project proponents propose to install means of reducing traffic congestion. These measures include the installation of park-and-ride lots, traffic signal synchronization, carpool/vanpool programs, flexible work hours, bus turnout lanes, bicycle routes, and the creation of Transportation Management Associations.

4.3.2 Environmental Impact Assessment

Impact Significance Criteria

Air impacts stem from on-site activities and off-site travel both during construction and after occupancy. Air quality impacts are considered significant if they:

- Exceed daily emission criteria established by the South Coast Air Quality Management District (SCAQMD).
- Result in emissions that exacerbate existing air quality conditions where air quality standards are already exceeded or result in exceedance of air quality standards.
- Violate County Rule 402 (Nuisance) or Rule 403 (Fugitive Dust).

Environmental Impacts

Air quality impacts can be divided into short- and long-term. Short-term impacts are usually associated with construction and grading activities. Long-term impacts are typically associated with build-out conditions. For the updated Circulation Element, long-term impacts may be further divided into both local and regional air quality impacts. Local impacts could result from the location of a major source of emissions adjacent to land containing sensitive receptors. Regional impacts could stem from the redistribution of traffic which results in a higher emissions generation.

The City of Colton Circulation Element prepared by Mohle, Grover & Assoc. (MGA) provides long-range plans for the local system of roadways which are anticipated to hold a 142 percent increase in the City's population by the year 2010. The Element depicts roadway improvements as well as strategies aimed at the reduction in traffic congestion with the underlying assumption that smooth traffic flow will aid in the alleviation of vehicle-produced air contaminants.

With regard to the proposed Circulation Element, air impacts stem from construction activities involved in roadway improvement and modification and vehicle travel both during construction and after implementation.

Short-Term Impacts: Exhaust Emissions

Construction equipment will create exhaust pollutants from on-site earth movement and from equipment bringing asphalt and other building materials on-site. With regards to nuisance odors, any air quality impacts will be confined to the immediate vicinity of the equipment itself. By the time such emissions reach any sensitive receptor sites away from the project site, they will be diluted to well below any level of air quality concern. An occasional "whiff" of diesel exhaust from trucks accessing the site from public roadways may result. Such brief exhaust odors are an adverse, but not significant, air quality impact.

Temporary impacts will result from transportation project construction activities within the planning area. Grading and construction activities will consume diesel fuel and thus produce combustion by-products. The quantities of emissions released can not be estimated at this time, as the timing and exact routing of modifications to the present circulation element are unknown (i.e., there is currently no way to anticipate the number of roads which will require improvement, how many bike paths will be constructed, how many bus turn-out lanes are to be constructed, etc. Further, it is unknown as to how much of this work is to be performed concurrently). However, based upon AP-42, "Compilation of Air Pollutant Emission Factors" (USEPA, 1985), and the current SCAQMD "Air Quality Handbook for Preparing Environmental Impact Reports" (SCAQMD, 1987) a significant impact would be anticipated if construction equipment were to operate more than 48 hours per day (i.e., six pieces of heavy equipment each operating for 8 hours per day). Obviously, more pieces of equipment could be used on-site, but the total equipment-hours could not exceed 48 hours per day. These six pieces would produce approximately 88 pounds of NOx leaving an additional 12 pounds available for haul trips and worker commutes to remain within the SCAQMD significance threshold of 100 pounds per day for NOx. Worker trips are based on 50 workers each traveling 27.8 miles per day (twice the SCAG projection of 13.9 miles for home-to-work trips for San Bernardino County). Though fewer workers could be used on a daily basis, the presented value is considered reasonable as site construction does generate additional trips for inspector visits, lunch truck visits, workers leaving the site to get lunch or run errands, etc. Table 4.3-3 presents the emissions associated with this scenario. Here, daily haul trips are based on 10 round trips of 30 miles each. A level of activity greater than presented in Table 4.3-3 would be anticipated to create a significant short-term impact. Mitigation could reduce this value by approximately 40 percent thus allowing as many as eight pieces of heavy equipment to each operate 8 hours per day or more (or longer) haul trips, or worker commutes, etc.

The SCAQMD Handbook is currently being updated and the new draft version "CEQA Air Quality Handbook" (SCAQMD, 1992) sets the impact significance criteria at much lower levels. An analysis as performed in Table 4.3-3 is presented in Table 4.3-4 to illustrate the effect that the proposed new significance thresholds will have on project construction. Note that based on the proposed SCAQMD levels, heavy equipment would be limited to approximately 24-hours worth of use on a daily basis. Again assuming that mitigation could reduce this value by approximately 40 percent, as many as four pieces of heavy equipment could each operate 8 hours per day or more (or longer) haul trips, or worker commutes, would be acceptable.

Short-Term Impacts: Fugitive Dust

Site clearing, paving, and equipment travel on unpaved surfaces could generate considerable quantities of fugitive dust during project implementation. As with exhaust emissions, there is currently no way of knowing the level of construction to be performed at any one time. Thus, this analysis focuses on the maximum amount of construction which can proceed at any one time before a significant impact would be anticipated. AP-42 estimates that each acre of land disturbed generates 1.2 tons per month (110 pounds per day) of PM-30 particulate matter from dust lofting into the air. This value will vary with soil moisture, silt content, wind speed, and several other factors. The PM-10 fraction typically consists of 45 percent of the PM-30 fraction. Based on the SCAQMD threshold value of 150 pounds of PM-10 on a daily basis, as many as 3 acres could be under active construction on a monthly basis

Table 4.3-3

TYPICAL AIR POLLUTION EMISSIONS ASSOCIATED WITH HEAVY EQUIPMENT, WORKER COMMUTING, AND MATERIALS DELIVERIES INVOLVED IN CONSTRUCTION WITH IMPACT SIGNIFICANCE CRITERIA BASED ON SCAQMD'S 1987 HANDBOOK[1]

Pollutant	Daily Emissions (Lb/day) Emp/Del/Con[2]	Total Daily Emissions (Lb/day)	SCAQMD Threshold Level (Lb/day)	Exceeds Threshold ?
Carbon Monoxide	19.8/3.1/47.4	70.3	550	No
Nitrogen Oxides (NOx as NO_2)	3.4/7.4/88.1	98.9	100	No
Reactive Organics[3]	1.8/1.0/9.7	12.5	75	No
Sulfur Oxides (SOx as SO_2)	2.5/1.6/9.8	13.9	150	No
Particulate Matter[4]	3.6/1.0/7.5	12.1	150	No

[1] **Based upon 1995 composite vehicle emission factors and assumes an average temperature of 75 degrees (F) and an average speed of 45 MPH. Also assumes 25 percent each for cold and hot starts. Mobile vehicle emissions factors are as modeled using EMFAC7PC. Employee trips are based upon 50 round trips of 27.8 miles. Truck trips are based upon 10 round trips of 30 miles. Construction equipment includes six pieces of heavy equipment each operating 8 hours per day. Heavy equipment emission factors as calculated using AP-42, 1985.**

[2] **Emp/Del/Con - Employee commutes/materials deliveries/on-site construction equipment.**

[3] **Based upon 90 percent of total organics for vehicle travel.**

[4] **Includes exhaust and tire wear PM-10 particulate matter.**

Table 4.3-4

TYPICAL AIR POLLUTION EMISSIONS ASSOCIATED WITH HEAVY EQUIPMENT, WORKER COMMUTING, AND MATERIALS DELIVERIES INVOLVED IN CONSTRUCTION WITH IMPACT SIGNIFICANCE CRITERIA BASED ON SCAQMD'S 1992 HANDBOOK[1]

Pollutant	Daily Emissions (Lb/day) Emp/Del/Con[2]	Total Daily Emissions (Lb/day)	SCAQMD Threshold Level (Lb/day)	Exceeds Threshold ?
Carbon Monoxide	19.8/3.1/23.7	46.6	274	No
Nitrogen Oxides (NOx as NO_2)	3.4/7.4/44.1	54.9	55	No
Reactive Organics[3]	1.8/1.0/4.9	7.7	55	No
Sulfur Oxides (SOx as SO_2)	2.5/1.6/4.9	9.0	150	No
Particulate Matter[4]	3.6/1.0/3.8	8.4	150	No

1 **Based upon 1995 composite vehicle emission factors and assumes an average temperature of 75 degrees (F) and an average speed of 45 MPH. Also assumes 25 percent each for cold and hot starts. Mobile vehicle emissions factors are as modeled using EMFAC7PC. Employee trips are based upon 50 round trips of 27.8 miles. Truck trips are based upon 10 round trips of 30 miles. Construction equipment includes three pieces of heavy equipment each operating 8 hours per day. Heavy equipment emission factors as calculated using AP-42, 1985.**

2 **Emp/Del/Con - Employee commutes/materials deliveries/on-site construction equipment.**

3 **Based upon 90 percent of total organics for vehicle travel.**

4 **Includes exhaust and tire wear PM-10 particulate matter.**

or about 6,000 square feet per day. Watering and other methods of dust suppression can reduce this value by at least 50 percent which would raise the allowable area of construction to about 12,000 square feet on a daily basis. Active construction on a larger area could produce a significant impact.

In addition to respiratory problems, this dust creates a soiling nuisance as the material settles out on parked cars and other horizontal surfaces. Regular watering and other dust abatement procedures, typically implemented as a normal part of construction activity, will aide in the control this nuisance. This impact is therefore considered potentially adverse, but not significant.

<u>Short-Term Impacts: Miscellaneous Emissions</u>

Other sources of emissions will also be present during the build-out of the improved circulation system. These result from:

- On-site paving.
- Increased emissions from the storage and transfer of diesel for project-related construction vehicles and gasoline for worker vehicles.

These impacts are addressed below.

Equipment exhaust emissions for paving are included in the previous calculations. However, if cutback asphalt is utilized its production will produce VOC emissions. This analysis assumes that 6 inches of asphalt will be applied over a 6 inch base of aggregate. A worst case scenario assumes the use of rapid cure cutback asphalt. The diluent, naphtha, typically comprises 35 percent of the total volume. Based on the methodology presented in AP-42, Section 4.5-2, VOC emissions comprise roughly 24 percent of the total volume. Using a weight of 3,375 pounds per cubic yard, each cubic yard of asphalt placed will generate roughly 810 pounds of VOCs. Approximately 90 percent of the VOCs will evaporate within the first month and 95 percent will evaporate in 3 to 4 months. With the exception of using a different type of asphalt, no controls are available to preclude these emissions.

In accordance with SCAQMD (past personal communication with Gary Bill, Air Quality Specialist), the significance of paving emissions is dubious. Though the quantity of VOCs released could be construed as a temporary significant impact, there is no criterion for these emissions. For construction, the paving of a dirt surface has the long-term beneficial effect of reducing PM-10 emissions for the subsequent operation and is typically considered a mitigation measure. Thus, though adverse, these emissions are not considered significant.

In addition to the emissions produced by the degassing of the asphalt, additional truck trips will be necessary for its delivery. As asphalt must be applied hot, the radius in which the asphalt can be delivered is limited. Assuming the paving of one acre per day, 1,613 cubic yards or 2,756 tons of asphalt and base would be applied. Assuming that an asphalt delivery is 22 tons per truck, 125 round-trip hauls or 2,500 miles will be traveled each day during paving. This additional traffic will generate 32.2 pounds of CO, 77.2 pounds of NOx, 10.3 pounds of reactive organic gases, 16.6 pounds

of SOx, and 10.3 pounds of PM-10 emissions on each day of paving. These values when added to the construction and commuting emissions presented in Table 4.3-3 or 4.3-4 will exceed the impact criteria for NOx and a significant impact would be anticipated during this portion of the construction.

The storage and transfer of diesel for construction equipment is not expected to add substantially to the air emissions. AP-42 lists transfer operations for diesel loading from tank trucks as 0.03 pounds per 1,000 gallons transferred. Construction equipment has a typical fuel consumption of approximately 12 gallons per hour while heavy trucks are estimated at 5.8 miles per gallon (EMFAC7PC). For the conglomeration of equipment, trucks and workers presented in Table 4.3-3, diesel usage is anticipated at approximately 630 gallons per day. Further, as many as 1,060 gallons may be used on a daily basis when the asphalt is laid. The fueling losses are then calculated at approximately 0.02 pounds per day for typical construction and as much as 0.03 pounds per day during paving. Due to the low Reid vapor pressure of diesel, evaporative losses from on-site diesel storage are even lower.

Gasoline will also be necessary for worker vehicles. Based upon 50 workers each commuting 27.8 miles round trip, 1,390 miles would be traveled on a daily basis. Vapor losses at gasoline stations are presented in AP-42 at 1.8 pounds per 1,000 gallons transferred, including spillage. Based on an average anticipated fuel use of 24 miles per gallon (from the 1995 EMFAC7PC model run), 58 gallons would be dispensed on a daily basis. Losses are then calculated at 0.1 pound per day. These values are considered insignificant and will not of themselves adversely affect the local air quality. However, all construction emissions must be considered as a whole and if the level of activity exceeds that described in Tables 4.3-3 and 4.3-4, a significant impact would be anticipated.

<u>Short-Term Impacts: Summary</u>

Construction is anticipated to generate potential significant short-term impacts, especially in light of the proposed SCAQMD significance thresholds currently under consideration. Depending on the project size, these impacts may be unavoidable and should be mitigated to the maximum extent feasible.

<u>Long-Term Impacts: Regional Emissions</u>

The main source of emissions in the City of Colton now and in the future will continue to be motor vehicles. Stationary source emissions are generated from the combustion of natural gas for space and water heating, the generation of electricity and miscellaneous commercial and industrial processes such as manufacturing, dry cleaning, sand and gravel production, etc. These, however, are small when compared to emissions produced by motor vehicles.

Estimates of the vehicular emissions generated by the proposed modification to the Circulation Element were made based on the EMFAC7PC Model distributed by the CARB. Traffic projections were provided by MGA. These projections were used to model the vehicle emissions both without and with project implementation. As per MGA, a vehicle speed of 40 mph was assumed for the projections. Emissions were projected for the year 2010. This year was selected as the most probable year that the proposed action would be fully implemented. The projected emissions are presented in Table 4.3-5.

The traffic model fails to consider the positive impact from the addition of bicycle routes and lanes with the project area (Ed Norris, MGA, Friday August 21, 1992). In accordance with the SCAQMD (1992) the construction, contribution, or dedication of land for the provision of off-site bicycle trails linking a facility to dedicated bicycle lanes can reduce the number of average daily trips by 1 to 3 percent. Further, the presence of bus turn-out lanes reduce congestion thereby reducing emissions. This value, however, is not quantifiable (SCAQMD 1992). Taking a conservative approach, a value of 1 percent in average daily traffic was associated with the bicycle circulation component and turn-out lanes. Table 4.3-6 then compares the emissions for both the no project and proposed project alternatives and considers this 1 percent reduction. Note that as NOx will decrease by more than 100 pounds per day, a small but significant reduction in emissions is anticipated.

Long-Term Impacts: Microscale

Sensitivity analysis was conducted to determine the potential for CO "hot spots" in the project vicinity using the CALINE4 computer model distributed by the CARB. Comparisons of levels with state (i.e., 20 ppm for 1 hour) and federal (i.e., 35 ppm for 1 hour) levels indicate the severity of the projected concentrations. The presented analysis includes freeways, roadway links, and intersections. The background level was ascertained from the highest 1-hour concentration from 1991 in the project area (i.e., 8 ppm). The peak hour volume along the freeways and roadway links was based upon 10 percent of the ADT as shown in the traffic study performed by MGA. Additionally, as this constitutes peak rush hour traffic a speed of one half that of a free flow speed was used. Thus, 30 mph was used for the freeways and 20 mph was used for surface streets. Rather than modeling every change in traffic volume along the freeways and the multitude of roads and intersections, it was determined that if a link and intersection could be ascertained where an impact would "just" occur, those with lesser volumes of traffic would produce no significant impacts while those with greater volumes would produce a significant impact.

Long-Term Impacts: Freeway Analysis

To ascertain the ability of the freeways to create a localized CO hotspot, a hypothetical receptor was placed at a distance of 150 feet from the junction of I-10 and I-215. To represent a worst case scenario the minimum wind speed (i.e., 0.5 meters per second) was used with the wind blowing directly at the receptor. Additionally, a stability class of G were utilized for a 1 hour average time. The recommended mixing height of 1,000 meters as recommended by the model was also used. The number of vehicles modeled represents the peak of the rush hour and is 10 percent of the total ADT for both I-10 and I-215. CO emissions factors were as modeled by EMFAC7PC and were 7.55 grams per mile. The model indicates that the receptor (at 150 feet) would be exposed to a CO concentration of 16.7 ppm of which 8.0 ppm are due to ambient background levels.

Table 4.3-5

TYPICAL AIR POLLUTION EMISSIONS ASSOCIATED WITH VEHICLE TRAVEL IN THE YEAR 2010[1]

Pollutant	Without Project	With Project	Net Reduction
Vehicle Miles Traveled (miles)	3,968,053	3,962,207	5,846
Carbon Monoxide (lbs)	43,876	43,811	65
Nitrogen Oxides (NOx as NO_2) (lbs)	12,061	12,044	17
Reactive Organics[2] (lbs)	4,012	4,006	6
Sulfur Oxides (SOx as SO_2) (lbs)	603	602	1
Particulate Matter[3] (lbs)	1,224	1,221	3

1 Based upon 2010 composite vehicle emission factors and assumes an average temperature of 75 degrees (F) and an average speed of 40 MPH. Also assumes 21 and 17 percent each for cold and hot starts, respectively. Mobile vehicle emissions factors are as modeled using EMFAC7PC. Emissions values are in pounds per day.
2 Based upon 90 percent of total organics for vehicle travel.
3 Includes exhaust and tire wear PM-10 particulate matter.

Table 4.3-6

TYPICAL AIR POLLUTION EMISSIONS ASSOCIATED WITH VEHICLE TRAVEL IN THE YEAR 2010 WHEN THE BICYCLE CIRCULATION ELEMENT IS CONSIDERED[1]

Pollutant	Without Project	With Project	Net Reduction
Vehicle Miles Traveled (miles)	3,968,053	3,922,585	45,468
Carbon Monoxide (lbs)	43,876	43,373	503
Nitrogen Oxides (NOx as NO_2) (lbs)	12,061	11,924	137
Reactive Organics[2] (lbs)	4,012	3,966	46
Sulfur Oxides (SOx as SO_2) (lbs)	603	596	7
Particulate Matter[3] (lbs)	1,224	1,212	12

1 In pounds per day based upon 2010 composite vehicle emission factors and assumes an average temperature of 75 degrees (F) and an average speed of 40 MPH. Also assumes 21 and 17 percent each for cold and hot starts, respectively. Mobile vehicle emissions factors are as modeled using EMFAC7PC. Emissions values are in pounds per day.
2 Based upon 90 percent of total organics for vehicle travel.
3 Includes exhaust and tire wear PM-10 particulate matter.

Similarly, a receptor located at a distance of 100 feet would be exposed to a CO concentration of 20.0 ppm of which 8.0 ppm are due to ambient background levels. Thus, if any receptors were located at a distance of less than approximately 100 feet, they would be exposed to significant levels of CO and a significant impact would be anticipated. Because land within 100 feet is Caltrans property, exposure of one hour is very unlikely. Note that this analysis considers year 2010 vehicles but ambient CO levels from 1991. In actuality, by the year 2010 background levels of CO would be expected to be less and the distance to a significant impact would move closer to the freeway interchange. Impacts along the individual freeways would be even less because fewer vehicles would come into proximity of the receptors.

Long-Term Impacts: Surface Street Analysis

To ascertain the ability of the surface streets to create a localized CO hotspots between intersections, a hypothetical receptor was placed at a distance of 33 feet from the curb at Pepper Avenue which carries the most traffic of any street in the project area. Here again, the peak rush hour was assumed to contain 10 percent of the total ADT. Also, a worst case analysis, as shown for the freeway system was used with the wind blowing directly at the receptor. The CO emission factor was as modeled by EMFAC7PC for an average speed of 20 mph and was 11.67 grams per mile. Note that as the emission factor predicted at 20 mph (i.e., 11.67 grams per mile) is higher than that predicted at 40 mph (i.e., 5.02 grams per mile), this analysis presents a reasonable worst case scenario. The model predicts that this receptor would be exposed to a CO level of 11.8 ppm and would not experience a significant impact. Further, the receptor could be situated directly at the easement of the roadway and the concentration would only be 12.1 ppm with 8.0 ppm attributable to the ambient concentration. Thus, no significant impacts are anticipated.

Long-Term Impacts: Intersection Analysis

In addition to freeway and surface street analyses, a separate analysis was performed to determine the potential for hotspots at intersections in the project area. Intersection data was as supplied by MGA. Here a hypothetical receptor was placed at a distance of 33 feet from the corner of Pepper Avenue and Valley Boulevard, the most crowded four-way intersection in the project area. During the P.M. peak hour, this intersection is projected to carry 6,884 vehicles. Again, due to the reduced speeds at this time of day, the CO emission factor was as modeled by EMFAC7PC for an average speed of 20 mph and was 11.67 grams per mile. As the CALINE4 computer model cannot deal with the intricacies of left and right turn arrows, right-hand turn movements on red signals, etc, the traffic signal was modeled to operate over a 90 second cycle period with 45 seconds of green in each direction (east-west and north-south). The model predicts that this receptor would be exposed to a CO level of 13.7 ppm with 8.0 ppm attributable to the ambient concentration. As this value is below the California standard of 20 ppm and the federal standard of 35 ppm per hour, no significant impacts are anticipated. Additionally, as this intersection carries the greatest volume of traffic in the project area, all other intersections within the project areas would also be within the applicable CO limits.

4.3.3 Mitigation

Construction

Tables 4.3-3 and 4.3-4 list the approximate maximum level of construction that could be undertaken at any one time to stay within the significance threshold limits. Note that the level of activity (especially based on the Draft SCAQMD levels) is not very large when considered to typical construction activities. Further, if two road projects were undertaken simultaneously, the emissions would be anticipated to exceed the significance threshold limits even for small projects. Finally, in areas of non-attainment, all additional emissions further exacerbate an existing exceedance of both the state and federal ozone and particulate levels. Thus, all projects should reduce generated emissions to the extent feasible. Applicable mitigation measures are presented below.

<u>Exhaust Emissions</u>

16) Use low emissions mobile and stationary equipment during construction.

17) Maintain construction equipment in tune as per manufacturers' specifications.

18) Utilize catalytic converters on gasoline-powered equipment.

19) Retard engine timing by 2 degrees.

20) Use reformulated, low-emissions diesel fuel.

21) Substitute electric and gasoline-powered equipment for diesel-powered equipment where feasible.

22) Utilize existing power sources (i.e., power poles) or clean fuel generators rather than temporary power generators.

23) Where applicable, equipment and vehicles should not be left idling for prolonged periods.

24) Curtail (cease or reduce) construction during periods of high ambient pollutant concentrations (i.e., stage I smog alerts).

25) Reduce the daily operation by reducing the number of pieces of equipment and haul trucks. This can be accomplished by lengthening a given project's time schedule.

26) Develop a trip reduction plan to achieve 1.5 persons per vehicle for construction employees.

27) Provide a flag person to guide traffic efficiently and ensure safety at construction sites.

28) Develop a traffic plan to minimize traffic flow interference from construction activities. This plan may include such items as advance public notice of routing, use of public transportation, and satellite parking areas with shuttle service.

29) Schedule materials haul trips during off-peak hours.

30) Minimize obstruction of through lanes from haul trucks.

Dust Emissions

31) Water construction sites and clean the equipment morning and evening.

32) Spread soil binders on the construction site, unpaved roads, and parking areas morning and evening.

33) Apply SCAQMD approved chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (i.e., previously graded areas which are to remain inactive for 96 hours or more).

34) If applicable, establish ground cover on construction sites through seeding and watering.

35) Pave construction roads and sweep streets if silt is carried over to adjacent public thoroughfares.

36) Reduce traffic speeds to less than 15 mph on all unpaved surfaces.

37) Wash off trucks leaving site.

38) Suspend all grading activities when wind speeds (as instantaneous gusts) exceed 25 mph.

Asphalt Emissions

39) Where feasible, utilize emulsified asphalt or asphaltic cement. The use of cutback asphalt should be avoided whenever possible.

The inclusion of these mitigation measures will reduce construction emissions to the extent feasible. Depending upon which measures are applied and the state of the equipment before application of the mitigation, emissions reduction would be on the order of 40 percent of predicted emissions for exhaust and over 50 percent of predicted emissions for dust. If either emulsified asphalt of asphaltic cement are used instead of cutback asphalt, asphalt emissions would be reduced to a negligible level.

Operations

The included analysis shows that the local traffic will add over 30.5 tons of criteria pollutants to the air on a daily basis. In order to meet the AQMP goals, emission reduction will be necessary. With vehicle emissions being the greatest local source of air pollutants, emissions reductions are aimed at reducing vehicle miles traveled on a daily basis. Based on current technology, the following measures will reduce these emissions to the maximum extent feasible.

40) Ensure efficient parking management.

41) Encourage employers to provide dedicated parking spaces with electrical outlets for electric vehicles.

42) Require the installation of electrical outlets in residential garages for the proliferation of electric vehicles.

43) Establish peripheral park-n-ride lots.

44) Where applicable, provide preferential parking to high occupancy vehicles and shuttle services.

45) Configure parking areas to minimize traffic interference by providing adequate ingress and egress.

46) Charge parking lot fees to low occupancy vehicles.

47) Promote Transportation Management Associations (TMSs).

48) Subsidize efficient methods of mass transportation.

49) Encourage employers to establish telecommuting programs, alternate work schedules, and satellite work centers.

50) Work with the City/developers/citizens in the region to implement TDM goals.

51) Continue to monitor traffic patterns and upgrade the circulation system as appropriate.

<u>Stationary Source Emissions Mitigation Measures</u>

Though mobile emissions represent the greatest source of pollutants in the project area, all emissions must be reduced if the goals of the AQMP are to be met. Thus, to the extent feasible, the project proponents should also require mitigation of stationary source emissions. Here, applicable mitigation includes the following.

52) Require development practices which maximize energy conservation as a prerequisite to permit approval.

53) Require the improvement of the thermal integrity of buildings and reduce the thermal load with automated time clocks and/or occupant sensors.

54) Require the utilization of window glazing, wall insulation, and efficient ventilation methods.

55) Require the utilization of energy efficient heating, air conditioning, water heaters, furnaces, boiler units, etc.

56) Where appropriate encourage the incorporation of passive solar design and solar heaters.

57) Offer incentives for the utilization of devices that minimize the combustion of fossil fuels.

58) Offer incentives for the capture and reuse of waste heat where possible.

59) Landscape with native drought-resistant species to reduce water consumption and provide passive solar benefits.

These mitigation measures will reduce any significant impacts to the extent feasible at this point in time. Though all of these measures may not be feasible, they should be evaluated for their effectiveness and instituted where appropriate to aid in the reduction of air emissions. The efficiency of the mitigation will be dependent on the adopted measures, the level to which these measures are currently being carried out, and the success of such measures as the ride-share program at attaining the 1.5 occupants per vehicle ratio.

4.3.4 Residual Environmental Impacts

With implementation of the described mitigation measures, air quality impacts will remain adverse, but will be reduced to a level of insignificance.

4.4 NOISE

This section has been prepared to assess the potential noise impacts from the proposed City of Colton Circulation Element. The updated Circulation Element can alter noise by placement of roadways or direction of traffic to areas containing sensitive receptors (i.e., areas where quiet is at a premium such as near dwelling units, schools, churches, hospitals, etc.). This section provides a summary of the existing noise levels in the planning area as well as providing an analysis of the difference in impacts associated with the changes in the updated Circulation Element.

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise can be defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. The decibel (dB) scale is used to quantify sound intensity. Because sound pressure can vary by over one trillion times within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level. Since the human ear is not equally sensitive to all frequencies within the entire spectrum, noise measurements are weighted more heavily within those frequencies of maximum human sensitivity in a process called "A-weighting", written as dBA. The human hearing can detect changes in sound levels of approximately 3 dBA under quiet conditions. Changes of less than 3 dBA are only discernable under controlled, extremely quiet conditions.

In assessing noise impacts, a 24-hour average measurement is typically used. Also, since community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law requires that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (Ldn). For the CNEL descriptor, a 5 dBA penalty is added to the noise produced between 7:00 P.M. and 10:00 P.M., and a 10 dBA penalty is added to noise produced between the hours of 10:00 P.M. and 7:00 A.M. The Ldn is calculated in the same manner but no penalty is added to the 7:00 P.M. to 10:00 P.M. noise. Both descriptors give roughly the same 24-hour average, with the CNEL being slightly more restrictive.

Noise may be generated from a point source, such as a piece of construction equipment, or from a line source, such as a road containing moving vehicles.

Noise attenuates (decreases) with distance. The typical atmospheric attenuation rate for point source noise is 6 dBA per doubling of the distance. For instance, if a point source has a noise level of 70 dBA, measured at 50 feet from the source, that noise would measure 64 dBA at 100 feet from the source. This relationship is predicted using the equation:

$$\text{Attenuated dBA} = 20\ (\log)\ \frac{\text{measured distance}}{\text{reference distance}}$$

A line source will also attenuate with distance, but the rate of attenuation is a function of both distance and the type of terrain over which the noise passes. Hard sites, such as developed areas with paving, attenuate at a rate of 3 dBA per doubling of the distance as predicted using the equation:

$$\text{Attenuated dBA} = 10 (\log) \frac{\text{measured distance}}{\text{reference distance}}$$

Soft sites, such as undeveloped areas and open space, attenuate at a rate of 4.5 dBA per doubling of the distance as predicted using the equation:

$$\text{Attenuated dBA} = 15 (\log) \frac{\text{measured distance}}{\text{reference distance}}$$

These represent the extremes, and most areas will actually contain a combination of hard and soft elements with the noise attenuation placed somewhere in between these two attenuation factors. Unfortunately the only way to actually determine the absolute amount of attenuation that an area provides is through actual field measurement under operating conditions with subsequent noise level measurements conducted at varying distances from a constant noise source.

Objects which block the line-of-sight to a noise source attenuate the noise if the receptor is located within the "shadow" of the blockage (such as behind a sound wall). If a receptor is located behind the wall, but has a view of the source, the wall will do very little to attenuate the noise and may actually increase the perceived noise by concentrating it to the receptor. Additionally, a receptor located on the same side of the wall as the noise source may experience an increase in the perceived noise level as the wall will reflect noise back to the receptor compounding the noise.

4.4.1 Environmental Setting

The residents within the planning area are generally affected by high noise levels at some time during the day or night. The noise tends to be the greatest in the central part of the City generally parallelling I-10 and the Southern Pacific Railroad and in the area toward Norton Air Force Base due to the operation of overhead military transports.

Traffic along both I-10 and I-215 creates noise as great as 86 dBA, and may take as mush as 6,300 feet to reduce to 65 dBA (In actuality, this distance would be expected to be far less as the intervening land uses present a noise barrier.). In addition to elevated noise levels in proximity to the freeways, Colton also experiences elevated levels in proximity to the railroad. The City is bisected by the rail lines and marshalling yards of three railroad companies; the Southern Pacific, the Santa Fe, and the Union Pacific. Portions of these lines pass through or adjacent to residential areas producing noise levels over 65 dBA to distances of 315 feet from the rails (Figure 4.4-1). Data taken from the City of Colton Community Profile Report list the following railroad operations:

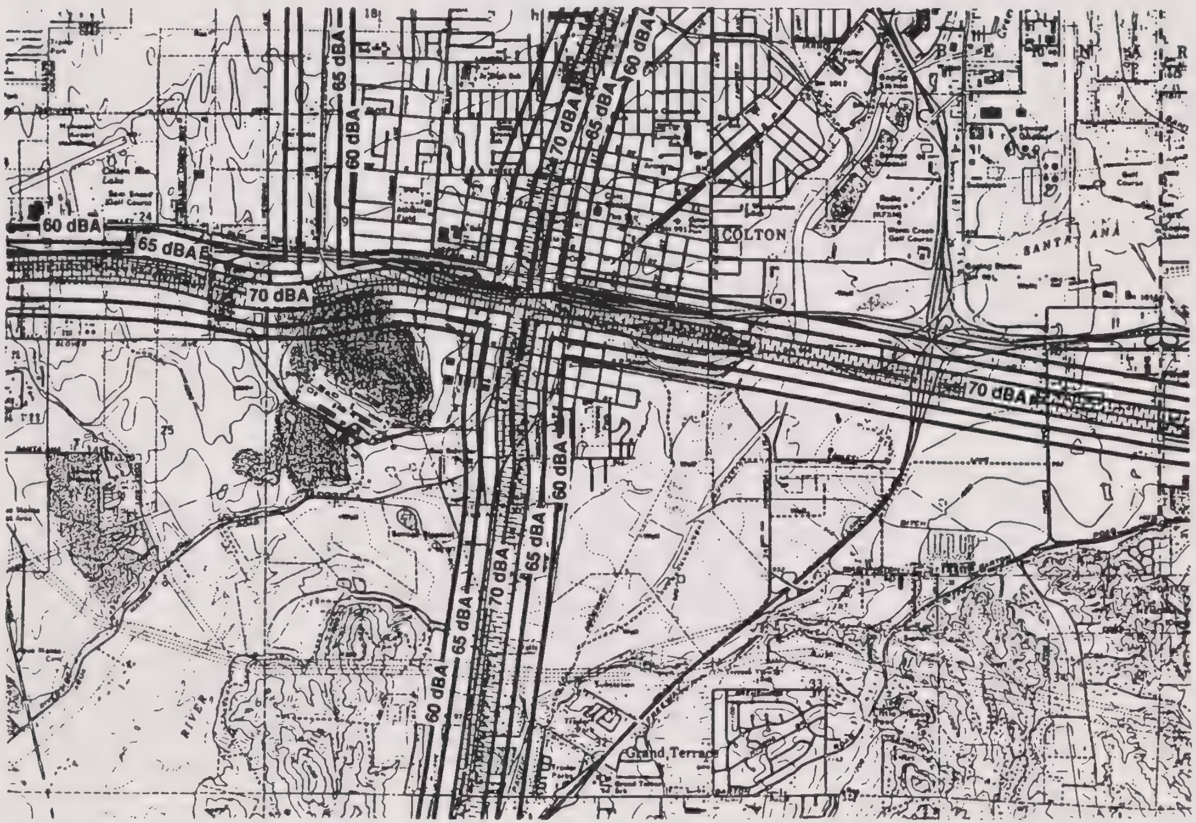


Figure 4.4-1
Railroad Noise Contours

Chambers Group, Inc.

north

- Southern Pacific. Approximately 30 freight trains proceed westbound to Los Angeles and eastbound to Indio daily. Another north-south line runs 10 operations toward Palmdale on a daily basis.

- Santa Fe. One freight train runs each hour of the day on a 24-hour schedule.

- Union Pacific. Three local runs operate between Colton and Riverside on a daily basis.

- Amtrak. The Community Noise Profile stated that two Amtrak trains are to run daily through Colton.

Vehicle traffic along the City's major streets including Pepper Avenue, Valley Boulevard, La Cadena Avenue, Colton Avenue, and Rancho Avenue can create noise problems for those who live or work adjacent to these routes. These streets create noise greater than 60 dBA along a 500 foot corridor. Table 4.4-1 lists the roads addressed in the Circulation Element, the 1992 Average Daily Traffic volume (ADT), the CNEL at 50 feet from the centerline of the roadway, and the distances to the 70, 65, and 60 dBA CNEL noise contours. In this analysis calculations were made for noise exposure adjacent to 69 roadway segments. The percentages of automobiles, medium trucks, and heavy trucks were obtained from the Community Profile Report and for surface streets are 97.4, 1.84, and 0.74 percent, respectively. These percentages are 89.0, 4.5, and 6.5, and 90.4, 4.52, and 5.08 on I-10 and I-215, respectively. An average speed of 40 mph was used for surface streets and the average speed used for both I-10 and I-215 was 55 mph. All sites were assumed to be "hard". The morning rush hour is between 6:00 and 9:00 A.M. and the evening rush hour is between 4:00 and 7:00 P.M. The traffic during each hour of these rush hours is equal to 2 hours of normal non-rush hour traffic. The night traffic (i.e., 10:00 P.M. to 6:00 A.M.) is equal to 15 percent of the average daily traffic.

Colton is located within the flight path of Norton Air Force Base. Military operations in and out of this facility subject significant portions of the City to jet noise of up to 70 dBA CNEL as illustrated in Figure 4.4-2.

Noise is also associated with various types of land use including residential, commercial, and industrial. Table 4.4-2 provides the range of noise levels typically associated with each of these types of land use.

Table 4.4-2

CITY OF COLTON NOISE LEVEL LIMITS[1]

Time	7:00 A.M. - 7:00 P.M.	7:00 P.M. - 10:00 P.M.	10:00 P.M. - 7:00 A.M.
Residential	55/60	50/55	45/50
Multi-Family	55/60	55/60	50/55
Commercial	60/65	60/65	55/60
Industrial	70	70	70

[1] Table taken from the City of Colton Community Profile Report. The first value represents a quiet area and the second a sightly noisy area.

Table 4.4-1

TRAFFIC GENERATED NOISE 1992 IN THE PROJECT AREA

Road Name	Location	ADT	CNEL at 50' from Centerline (dBA)	Distnace to 70 dBA CNEL (feet)	Distance to 65 dBA CNEL (feet)	Distance to 60 dBA CNEL (feet)
Pepper Ave	I-10 - Santa Ana	2,700	63	< 50	< 50	100
Pepper Ave	Valley - Olive	14,900	70	50	158	500
Pepper Ave	Olive - Randall	13,900	70	50	158	500
Meridian Ave	Valley - NCL	1,000	58	< 50	< 50	< 50
San Bernardino Ave	City Limit - Pepper	2,500	62	< 50	< 50	79
Olive St	City Limit - Pepper	2,500	62	< 50	< 50	79
Valley Blvd	Pepper - Rancho	9,400	68	< 50	100	315
Valley Blvd	City Limit - Pepper	8,900	68	< 50	100	315
Slover Ave	Pepper - Rancho	2,700	63	< 50	< 50	100
Agua Mansa Rd	City Limit - Pepper	1,500	60	< 50	< 50	50
Mill Ave	City Limit - Rancho	9,250	68	< 50	100	315
Mill Ave	City Limit - Rancho	1,650	60	< 50	< 50	50
Citrus St	Rancho - Mt. Vernon	1,000	58	< 50	< 50	< 50
Rancho Ave	Pepper - Pennsylvania	8,500	68	< 50	100	315
Rancho Ave	Mill - Olive	9,850	68	< 50	100	315
Pennsylvania Ave	Olive - Valley	4,000	65	< 50	50	158
Pennsylvania Ave	Mill - Olive	2,400	62	< 50	< 50	79
Laurel St	Olive - Valley	2,000	61	< 50	< 50	63
Olive St	Rancho - Mt. Vernon	3,100	63	< 50	< 50	100
"C" St	Rancho - La Cadena	3,300	63	< 50	< 50	100

Table 4.4-1

TRAFFIC GENERATED NOISE 1992 IN THE PROJECT AREA

Road Name	Location	ADT	CNEL at 50' from Centerline (dBA)	Distnace to 70 dBA CNEL (feet)	Distance to 65 dBA CNEL (feet)	Distance to 60 dBA CNEL (feet)
"C" St	Meridian - Rancho	4,400	65	< 50	50	158
"C" St	Rancho - La Cadena	1,600	60	< 50	< 50	50
"E" St	La Cadena - Mt. Vernon	1,100	58	< 50	< 50	< 50
"E" St	Rancho - La Cadena	1,300	59	< 50	< 50	< 50
"H" St	La Cadena - Mt. Vernon	5,100	66	< 50	63	200
"H" St	Rancho - La Cadena	3,000	63	< 50	< 50	50
Valley Blvd	La Cadena - Mt. Vernon	12,000	69	< 50	126	397
Valley Blvd	Rancho - La Cadena	10,500	69	< 50	126	397
La Cadena Ave	La Cadena - Mt. Vernon	7,100	67	< 50	79	251
La Cadena Ave	Mt. Vernon - Olive	7,100	67	< 50	79	251
Colton Ave	Olive - Valley	5,000	66	< 50	63	200
Colton Ave	10th - Mt. Vernon	6,000	66	< 50	63	200
Mt. Vernon Ave	Mt. Vernon - NCL	13,000	70	50	158	500
Mt. Vernon Ave	La Cadena - Colton	13,000	70	50	158	500
Fairway St	Colton - Valley	3,780	64	< 50	< 50	126
Fairway St	Mt. Vernon Sperry	4,580	65	< 50	50	158
Sperry Dr	Sperry - Auto Plaza	2,660	63	< 50	< 50	100
Rancho Ave	I-10 - Fairway	12,000	69	< 50	126	397
La Cadena Ave	I-10 - La Cadena	9,200	68	< 50	100	315
"M" St	I-10 - Rancho	1,000	58	< 50	< 50	< 50

Table 4.4-1

TRAFFIC GENERATED NOISE 1992 IN THE PROJECT AREA

Road Name	Location	ADT	CNEL at 50' from Centerline (dBA)	Distnace to 70 dBA CNEL (feet)	Distance to 65 dBA CNEL (feet)	Distance to 60 dBA CNEL (feet)
"M" St	Rancho - La Cadena	2,400	62	< 50	< 50	79
Fogg St	La Cadena - Mt. Vernon	N/A	N/A	N/A	N/A	N/A
La Cadena Ave	La Cadena - "M"	14,000	70	50	158	500
La Cadena Ave	Rancho - Barton	11,700	69	< 50	126	397
Mt. Vernon Ave	Barton - I-215	14,000	70	50	158	500
Mt. Vernon Ave	I-10 E/B - Cooley	16,400	71	63	200	629
Barton Rd	Cooley - Washington	N/A	N/A	N/A	N/A	N/A
Barton Rd	Washington - La Cadena	8,200	68	< 50	100	315
Barton Rd	La Cadena - I-215	9,000	68	< 50	100	315
Cooley Dr	SCL - Washington	4,640	65	< 50	50	158
San Antonio Dr	Mt. Vernon - Washington	3,700	64	< 50	< 50	126
San Antonio Dr	Washington - Mt. Vernon	3,700	64	< 50	< 50	126
Centrepointe Dr	Mt. Vernon - Centrepointe	1,100	58	< 50	< 50	< 50
Riverside Ave	Mt. Vernon - Sn Antonio	14,000	70	50	158	500
Washington St	NCL - SCL	N/A	N/A	N/A	N/A	N/A
Washington St	Riverside - Barton	N/A	N/A	N/A	N/A	N/A
Washington St	Barton - La Cadena	N/A	N/A	N/A	N/A	N/A
Washington St	La Cadena - Mt. Vernon	25,100	72	79	251	792
Washington St	I-215 Overpass	3,000	63	< 50	< 50	50
Barton Rd	I-215 - Barton	23,100	72	79	251	792

Table 4.4-1

TRAFFIC GENERATED NOISE 1992 IN THE PROJECT AREA

Road Name	Location	ADT	CNEL at 50' from Centerline (dBA)	Distnace to 70 dBA CNEL (feet)	Distance to 65 dBA CNEL (feet)	Distance to 60 dBA CNEL (feet)
Barton Rd	Washington - Reche Cyn	24,000	72	79	251	792
Hunts Ln	Reche Cyn - Waterman	13,000	70	50	158	500
Hunts Ln	I-10 - Cooley	11,000	69	< 50	126	397
Reche Canyon Rd	Cooley - Barton	9,300	68	< 50	100	315
Interstate 10	Barton - City Limit	120,000	85	1,581	5,000	15,811
Interstate 10	City Limit - Pepper	124,000	85	1,581	5,000	15,811
Interstate 10	Pepper - Rancho	124,000	85	1,581	5,000	15,811
Interstate 10	Rancho - Ninth	127,000	86	1,991	6,295	19,905
Interstate 10	Ninth - Mt. Vernon	124,000	85	1,581	5,000	15,811
Interstate 10	Mt. Vernon - I-215	140,000	86	1,991	6,295	19,905
Interstate 215	I-215 - Waterman	111,000	84	1,256	3,972	12,559
Interstate 215	La Cadena - Barton	112,000	84	1,256	3,972	12,559
Interstate 215	Barton - Washington	111,000	84	1,256	3,972	12,559
Interstate 215	Washington - I-10	140,000	85	1,581	5,000	15,811

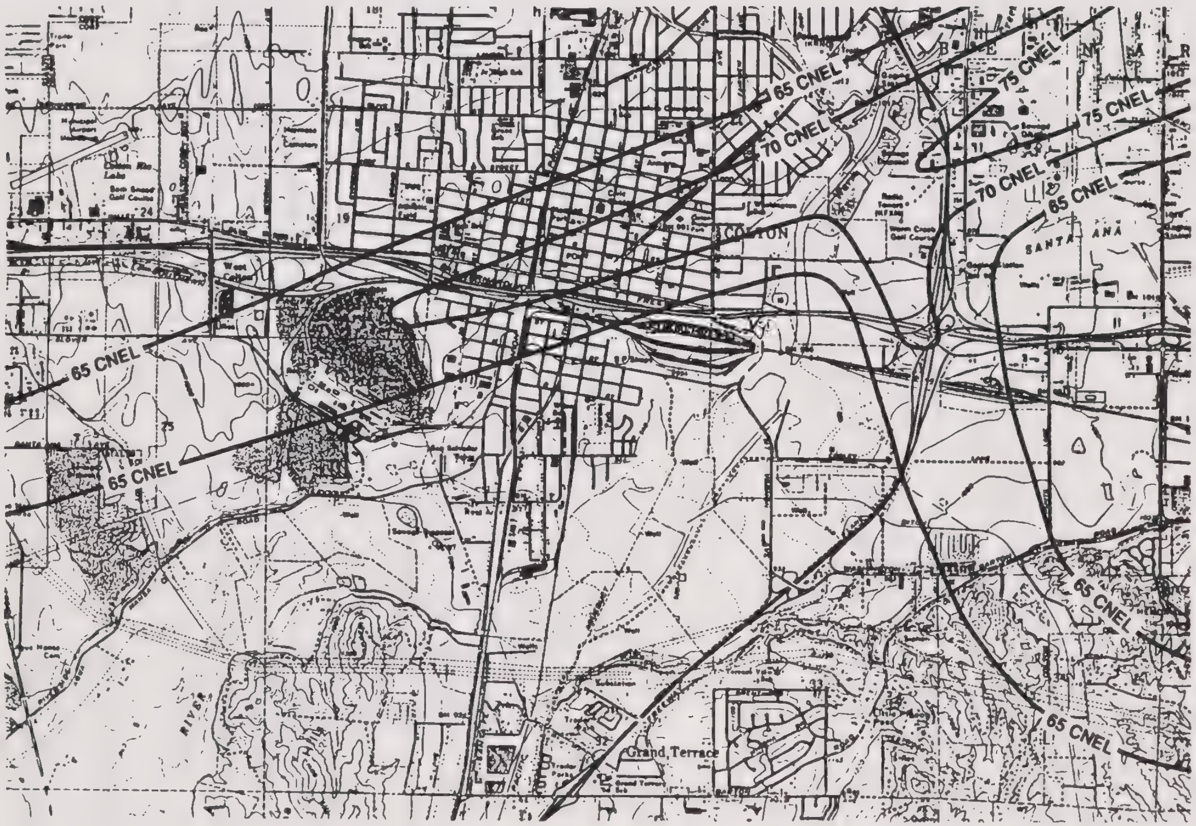


Figure 4.4-2
Airport Noise Contours

Chambers Group, Inc.

north

4.4.2 Environmental Impact Assessment

Impact Significance Criteria

- The impact significance criteria used in this EIR correspond to the land use compatibility table presented in the Noise Element of City of Colton General Plan, and illustrated on Figure 4.4-3. This figure shows that acceptable noise levels vary with the type of land use impacted. For instance, single-family residential areas can be exposed to noise levels up to 60 dBA before a significant impact would occur.

- In cases where the ambient (existing) noise levels in an area exceed the significance threshold shown on Figure 4.4-3, an impact would be considered to be significant if the additional noise raised the ambient level by over 3 dBA.

Additionally the Noise Element is somewhat unique in that incorporates noise adjustment factors in response seasonal, outdoor residual, and community attitudes. These adjustment factors are presented in Table 4.4-3.

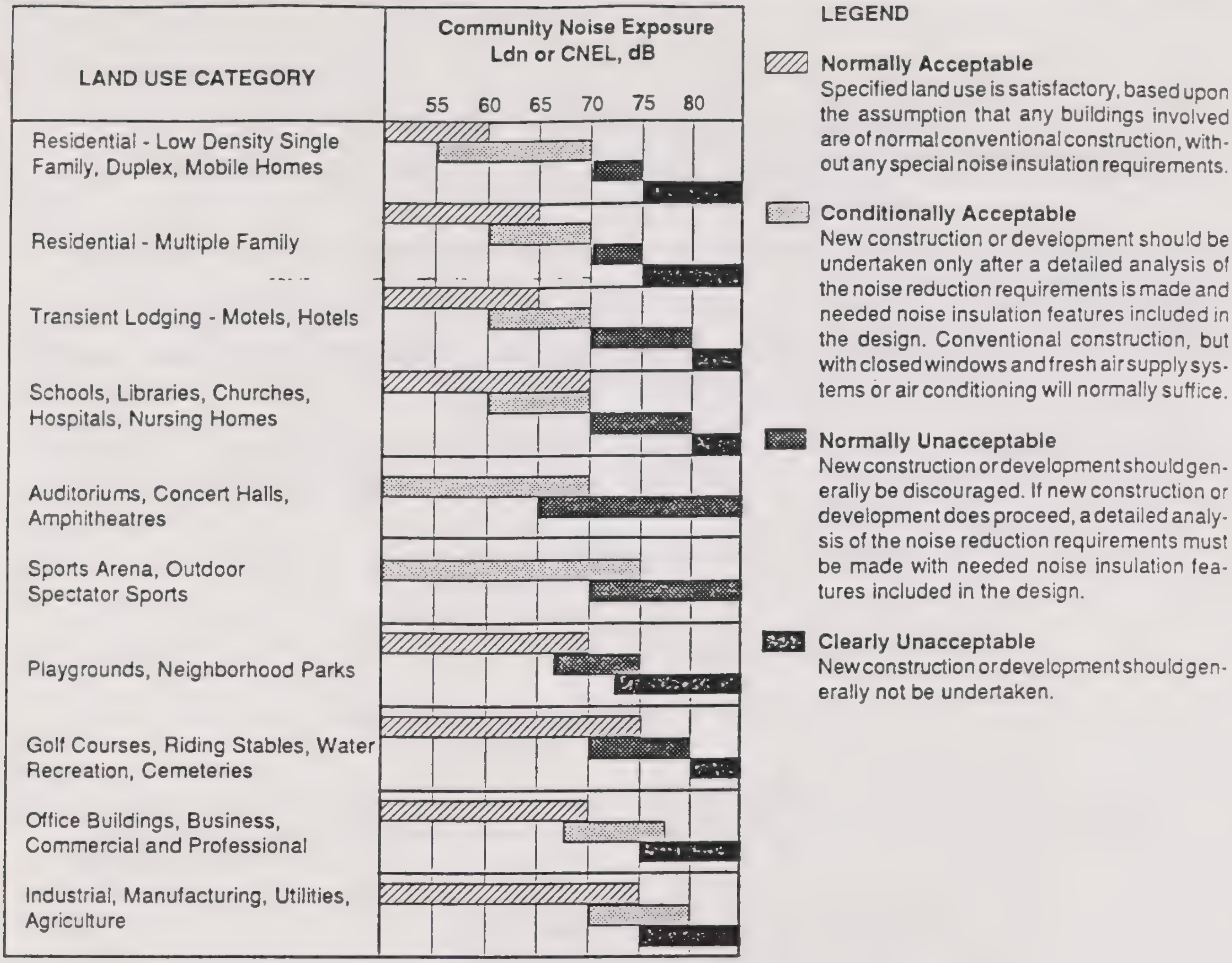
Environmental Impacts

Two characteristic noise sources are typically identified with continuing suburban mixed use development and roadway improvements as proposed in the Circulation Element. Construction activities, especially heavy equipment operation, will create short-term noise level increases in proximity to any proposed development or improvement. Though buildout of a specific project will typically increase vehicular traffic on area streets creating a higher noise exposure, the proposed Circulation Element is proposed to reduce daily miles traveled which would in turn infer less noise produced. However, if milage reductions are gained by the rerouting of traffic to new areas, there is the potential to impact additional receptors.

<u>Construction Noise Impacts</u>

Temporary construction noise impacts vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment and its level of activity. Short-term construction noise impacts tend to occur in discrete phases dominated initially by large earth-moving sources, and later for finish construction. The heavy equipment noise typically ranges up to about 89 dBA at 50 feet from the source (USEPA 1971). Point sources of noise emissions are atmospherically attenuated at a rate of 6 dB per doubling of distance.

In accordance with the City's Noise Adjustment Policy, construction noise is considered necessary and is of limited duration. Thus, 10 dBA is removed from the noise source (or added to the allowable CNEL) in the calculation of the CNEL value. Construction does not typically occur 24-hours per day, and the CNEL produced by 8 and 12 hours of construction is 84 and 86 dBA, respectively, assuming



CONSIDERATIONS IN DETERMINATION OF NOISE-COMPATIBLE LAND USE

A. NORMALIZED NOISE EXPOSURE INFORMATION DESIRED

Where sufficient data exists, evaluate land use suitability with respect to a "normalized" value of CNEL or L_{dn}. Normalized values are obtained by adding or subtracting the constants as described in the Noise Adjustment Table to the measured or calculated value of CNEL or L_{dn}.

B. NOISE SOURCE CHARACTERISTICS

The land use-noise compatibility recommendations should be viewed in relation to the specific source of the noise. For example, aircraft and railroad noise is normally made up of higher single noise events than auto traffic but occurs less frequently. Therefore, different sources yielding the same composite noise exposure do not necessarily create the same noise environment. The State Aeronautics Act uses 65 dB CNEL as the criterion which airports must eventually meet to protect existing noise. In order to facilitate the purposes of the Act, one of which is to encourage land uses compatible with the 65 dB CNEl criterion wherever possible, and in order to facilitate the ability of airports to comply with the Act, residential uses located in Community Noise Exposure Areas greater than 65 dB should be discouraged and considered located within normally unacceptable areas.

C. SUITABLE INTERIOR ENVIRONMENTS

One objective of locating residential units relative to a known noise source is to maintain a suitable interior noise environment at no greater than 45 dB CNEL of L_{dn}. This requirement coupled with the measured or calculated noise reduction performance of the type of structure under consideration, should govern the minimum acceptable distance to a noise source.

D. ACCEPTABLE OUTDOOR ENVIRONMENTS

Another consideration, which in some communities is an overriding factor, is the desire for an acceptable outdoor noise environment. When this is the case, more restrictive standards for land use compatibility, typically below the maximum considered "normally acceptable" for that land use category, may be appropriate.

Figure 4.4-3
Land Use Compatibility For Community Noise Environments

Table 4.4-3

NOISE ADJUSTMENT REFERENCE
[Corrections to be Added to the Measured Community Noise Equivalent Level (CNEL) to Obtain Normalized CNEL]

Type of Correction	Description	Amount of Correction to be Added to Measured CNEL in dB
Seasonal Correction	Summer (or year-round operation)	0
	Winter only (or windows always closed)	-5
Correction for Outdoor Residual Noise Level	Quiet suburban or rural community (remote from large cities and from industrial activity and trucking).	+10
	Quiet suburban or rural community (not located near industrial activity).	+5
	Urban residential community (not immediately adjacent to heavily traveled roads and industrial areas).	0
	Noisy urban residential community (near relatively busy roads or industrial areas).	-5
	Very noise urban residential community.	-10
Correction for Previous Exposure and Community Attitudes	No prior experience with the intruding noise.	+5
	Community has had some previous exposure to intruding noise but little effort is being made to control the noise. This correction may also be applied in a situation where the community has not been exposed to the noise previously, but the people are aware that bona fide efforts are being made to control the noise.	0
	Community has had considerable previous exposure to the intruding noise and the noise maker's relations with the community are good.	-5
	Community is aware that operation causing noise is very necessary and it will not continue indefinitely. This correction can be applied for an operation of limited duration and under emergency circumstances.	-10
Pure Tone or Impulse	No pure tone or impulsive character.	0
	Pure Tone or impulsive character present.	+5

that all construction is performed between the hours of 7:00 A.M. and 7:00 P.M. Table 4.4-4 presents the allowable noise for construction and the distance to that value for the various types of land use.

Vehicular Noise Impacts

Long term noise concerns from the implementation of the Circulation Element center primarily on mobile source noise emissions on the major roadways in and around the planning area. Future noise impact concerns were addressed using the Caltrans microcomputer version of the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108). The model calculates the Leq noise level for a particular set of input conditions, and then makes a series of adjustments for site-specific traffic volumes, distances, speeds and noise barriers. Calculations were made for noise exposure adjacent to 75 roadway segments both with and without project implementation. As with the calculations performed for the existing traffic, the same assumptions relative to average speed, vehicle mix and rush hour timing. Table 4.4-5 summarizes the calculated CNEL contours at 50 feet from the roadway centerline for each analysis segment and also shows the distance from the centerline to the 70, 65, and 60 dBA CNEL contours for noise sensitive land uses.

As shown on Table 4.4-5, project implementation will not raise the CNEL along any of the roadways surveyed from a level of less than 65 dBA CNEL to a level greater than 65 dBA CNEL nor will the project raise the CNEL by a level of 3 dBA if the future existing conditions are already anticipated to exceed the allowable CNEL for a given land use. Depending on the type of land use and the distance to any sensitive receptors, a potentially significant impact exists along Washington Street which would not be developed between Barton and Mt. Vernon without the project. This is also true of Barton between Washington and La Cadena. Conversely, the project will not significantly improve the noise situation from the anticipated future noise levels without project implementation.

4.4.3 Mitigation Measures

Construction

Active construction will raise areal noise levels during its presence and in areas deemed sensitive, should be mitigated to the extent feasible.

60) Prohibit construction from 7 P.M. to 7 A.M. (8 P.M. to 9 A.M. on weekends and holidays), and may also establish exposure limits from mobile and stationary construction activity noise sources during times of allowed operations.

61) All construction equipment should utilize properly working mufflers and be kept in a proper state of tune to alleviate backfires.

62) Where possible, stationary equipment such as generators, should be equipped with noise shrouds and placed as far as possible from sensitive receptor locations.

Table 4.4-4

ALLOWABLE CONSTRUCTION NOISE AND DISTANCE TO A SIGNIFICANT IMPACT FOR VARIOUS TYPES OF LAND USE[1]

Land Use Category	Acceptable Community Noise Exposure (dBA)	Acceptable Construction Noise Exposure (dBA)	Distance from Construction to Allowable CNEL for 8 Hours of Construction	Distance from Construction to Allowable CNEL for 12 Hours of Construction
Residential-Low density, Single Family Homes, Duplex, and Mobile Homes	60	70	251'	315'
Residential-Multi-family	65	75	141'	177'
Transient Lodging-Motels, Hotels	65	75	141'	177'
Schools, Libraries, Churches, Hospitals, and Nursing Homes	65	75	141'	177'
Sports Arenas, Outdoor Spectator Sports	75	85	<50'	56'
Playgrounds and Neighborhood Parks	70	80	79'	100'
Golf Courses, Riding Stables, Water Recreation, Cemeteries	70	80	79'	100'
Office Buildings	70	80	79'	100'
Industrial, Manufacturing, Utilities, and Agricultural	75	85	<50'	56'

[1] Assumes that all construction is performed between the hours os 7:00 A.M. and 7:00 P.M.

Table 4.4-5

2010 TRAFFIC-GENERATED NOISE IN THE PROJECT BOTH WITH AND WITHOUT PROJECT IMPLEMENTATION[1]

Road Name	Location	ADT Without Project (dBA)	CNEL at 50' From Centerline W/O Project	ADT With Project	CNEL at 50' from Centerline W/Project (dBA)	Distance to 70 dBA CNEL (feet)	Distance to 65 dBA CNEL (feet)	Distance to 60 dBA CNEL (feet)
Pepper Ave	I-10 - Santa Ana	23,000	72	27,000	73	79/100	251/315	792/998
Pepper Ave	Valley - Olive	26,000	73	35,000	74	100/126	315/397	998/1,256
Pepper Ave	Olive - Randall	23,000	72	29,000	73	79/100	251/315	792/998
Meridian Ave	Valley - NCL	7,000	67	6,000	66	<50/<50	79/63	251/200
San Bernardino Ave	City Limit - Pepper	13,000	70	13,000	70	50/50	158/158	500/500
Olive St	City Limit - Pepper	11,000	69	8,000	68	<50/<50	126/100	397/315
Valley Blvd	Pepper - Rancho	27,000	73	20,000	72	100/79	315/251	998/792
Valley Blvd	City Limit - Pepper	25,000	72	25,000	72	79/79	251/251	792/792
Slover Ave	Pepper - Rancho	12,000	69	12,000	69	<50/<50	126/126	397/397
Agua Mansa Rd	City Limit - Pepper	15,000	70	8,000	68	50/<50	158/100	500/315
Mill Ave	City Limit - Rancho	13,000	70	22,000	72	50/79	158/251	500/792
Mill Ave	City Limit - Rancho	17,000	71	23,000	72	63/79	200/251	629/792
Citrus St	Rancho - Mt. Vernon	3,000	63	5,000	65	<50/<50	<50/50	50/158
Rancho Ave	Pepper - Pennsylvania	24,000	72	27,000	73	79/100	251/315	792/998
Rancho Ave	Mill - Olive	29,000	73	32,000	74	100/126	315/397	998/1,256
Pennsylvania Ave	Olive - Valley	7,000	67	7,000	67	<50/<50	79/79	251/251
Pennsylvania Ave	Mill - Olive	7,000	67	7,000	67	<50/<50	79/79	251/251

Table 4.4-5

2010 TRAFFIC-GENERATED NOISE IN THE PROJECT BOTH WITH AND WITHOUT PROJECT IMPLEMENTATION[1]

Road Name	Location	ADT Without Project (dBA)	CNEL at 50' From Centerline W/O Project	ADT With Project	CNEL at 50' from Centerline W/Project (dBA)	Distance to 70 dBA CNEL (feet)	Distance to 65 dBA CNEL (feet)	Distance to 60 dBA CNEL (feet)
Laurel St	Olive - Valley	3,000	63	3,000	63	<50/<50	<50/<50	50/50
Olive St	Rancho - Mt. Vernon	5,000	65	4,000	65	<50/<50	50/50	158/158
"C" St	Rancho - La Cadena	7,000	67	7,000	67	<50/<50	79/79	251/251
"C" St	Meridian - Rancho	8,000	68	8,000	68	<50/<50	100/100	315/315
"C" St	Rancho - La Cadena	4,000	65	3,000	63	<50/<50	50/<50	158/50
"E" St	La Cadena - Mt. Vernon	5,000	65	6,000	66	<50/<50	50/63	158/200
"E" St	Rancho - La Cadena	1,000	58	2,000	61	<50/<50	<50/<50	<50/63
"H" St	La Cadena - Mt. Vernon	7,000	67	7,000	67	<50/<50	79/79	251/251
"H" St	Rancho - La Cadena	7,000	67	7,000	67	<50/<50	79/79	251/251
Valley Blvd	La Cadena - Mt. Vernon	20,000	72	22,000	72	79/79	251/251	792/792
Valley Blvd	Rancho - La Cadena	20,000	72	21,000	72	79/79	251/251	792/792
La Cadena Ave	La Cadena - Mt. Vernon	13,000	70	17,000	71	50/63	158/200	500/629
La Cadena Ave	Mt. Vernon - Olive	13,000	70	21,000	72	50/79	158/251	500/792
Colton Ave	Olive - Valley	6,000	66	6,000	66	<50/<50	63/63	200/200
Colton Ave	10th - Mt. Vernon	11,000	69	7,000	67	<50/<50	126/79	397/251
Mt. Vernon Ave	Mt. Vernon - NCL	18,000	71	17,000	71	63/63	200/200	629/629

Table 4.4-5

2010 TRAFFIC-GENERATED NOISE IN THE PROJECT BOTH WITH AND WITHOUT PROJECT IMPLEMENTATION[1]

Road Name	Location	ADT Without Project (dBA)	CNEL at 50' From Centerline W/O Project	ADT With Project	CNEL at 50' from Centerline W/Project (dBA)	Distance to 70 dBA CNEL (feet)	Distance to 65 dBA CNEL (feet)	Distance to 60 dBA CNEL (feet)
Mt. Vernon Ave	La Cadena - Colton	23,000	72	23,000	72	79/79	251/251	792/792
Fairway St	Colton - Valley	10,000	68	10,000	68	<50/<50	100/100	315/315
Fairway St	Mt. Vernon Sperry	15,000	70	16,000	71	50/63	158/200	500/792
Sperry Dr	Sperry - Auto Plaza	8,000	68	9,000	68	<50/<50	100/100	315/315
Rancho Ave	I-10 - Fairway	24,000	72	32,000	74	79/126	251/397	792/1,256
La Cadena Ave	I-10 - La Cadena	18,000	71	21,000	72	63/79	200/251	629/792
"M" St	I-10 - Rancho	2,000	61	1,000	58	<50/<50	<50/<50	63/<50
"M" St	Rancho - La Cadena	4,000	65	3,000	63	<50/<50	50/<50	158/100
Fogg St	La Cadena - Mt. Vernon	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Cadena Ave	La Cadena - "M"	26,000	73	38,000	74	100/126	315/397	998/1,256
La Cadena Ave	Rancho - Barton	21,000	72	27,000	73	79/100	251/315	792/998
Mt. Vernon Ave	Barton - I-215	23,000	72	34,000	74	79/126	251/397	792/1,256
Mt. Vernon Ave	I-10 E/B - Cooley	22,000	72	28,000	73	79/100	251/315	792/998
Barton Rd	Cooley - Washington	N/A	N/A	5,000	65	N/A/<50	N/A/50	N/A/158
Barton Rd	Washington - La Cadena	14,000	70	14,000	70	50/50	158/158	500/500
Barton Rd	La Cadena - I-215	17,000	71	22,000	72	63/79	200/251	629/792

Table 4.4-5

2010 TRAFFIC-GENERATED NOISE IN THE PROJECT BOTH WITH AND WITHOUT PROJECT IMPLEMENTATION[1]

Road Name	Location	ADT Without Project (dBA)	CNEL at 50' From Centerline W/O Project	ADT With Project	CNEL at 50' from Centerline W/Project (dBA)	Distance to 70 dBA CNEL (feet)	Distance to 65 dBA CNEL (feet)	Distance to 60 dBA CNEL (feet)
Cooley Dr	SCL - Washington	7,000	67	7,000	67	<50/<50	79/79	251/251
San Antonio Dr	Mt. Vernon - Washington	6,000	66	8,000	68	<50/<50	63/100	200/315
San Antonio Dr	Washington - Mt. Vernon	3,000	63	5,000	65	<50/<50	<50/50	100/158
Centrepointe Dr	Mt. Vernon - Centrepointe	2,000	61	2,000	61	<50/<50	<50/<50	63/63
Riverside Ave	Mt. Vernon - Sn Antonio	36,000	74	34,000	74	126/126	397/397	1,256/1,256
Washington St	NCL - SCL	N/A	N/A	14,000	70	N/A/50	N/A/158	N/A/500
Washington St	Riverside - Barton	N/A	N/A	9,000	68	N/A/<50	N/A/100	N/A/315
Washington St	Barton - La Cadena	N/A	N/A	23,000	72	N/A/79	N/A/251	N/A/792
Washington St	La Cadena - Mt. Vernon	41,000	75	44,000	75	158/158	500/500	1,581/1,581
Washington St	I-215 Overpass	37,000	74	45,000	75	126/158	397/500	1,256/1,581
Barton Rd	I-215 - Barton	39,000	74	53,000	76	126/200	397/629	1,256/1,991
Barton Rd	Washington - Reche Cyn	35,000	74	45,000	75	126/158	397/500	1,256/1,581
Hunts Ln	Reche Cyn - Waterman	25,000	72	26,000	73	79/100	251/315	792/998
Hunts Ln	I-10 - Cooley	15,000	70	24,000	72	50/79	158/251	500/792
Reche Canyon Rd	Cooley - Barton	26,000	73	33,000	74	100/158	315/500	998/1,581
Interstate 10	Barton - City Limit	153,000	86	150,000	86	1,991/1,991	6,295/6,295	19,905/19,905
Interstate 10	City Limit - Pepper	157,000	86	154,000	86	1,991/1,991	6,295/6,295	19,905/19,905
Interstate 10	Pepper - Rancho	156,000	86	152,000	86	1,991/1,991	6,295/6,295	19,905/19,905

Table 4.4-5

2010 TRAFFIC-GENERATED NOISE IN THE PROJECT BOTH WITH AND WITHOUT PROJECT IMPLEMENTATION[1]

Road Name	Location	ADT Without Project (dBA)	CNEL at 50' From Centerline W/O Project	ADT With Project	CNEL at 50' from Centerline W/Project (dBA)	Distance to 70 dBA CNEL (feet)	Distance to 65 dBA CNEL (feet)	Distance to 60 dBA CNEL (feet)
Interstate 10	Rancho - Ninth	173,000	87	168,000	87	2,506/2,506	7,924/7,294	25,059/25,059
Interstate 10	Ninth - Mt. Vernon	177,000	87	171,000	87	2,506/2,506	7,924/7,294	25,059/25,059
Interstate 10	Mt. Vernon - I-215	252,000	88	247,000	88	3,155/3,155	9,976/9,976	31,538/31,548
Interstate 215	I-215 - Waterman	174,000	86	169,000	86	1,991/1,991	6,295/6,295	19,905/19,905
Interstate 215	La Cadena - Barton	186,000	87	173,000	86	2,506/1,991	7,924/6,295	25,059/19,905
Interstate 215	Barton - Washington	165,000	86	158,000	86	1,991/1,991	6,295/6,295	19,905/19,905
Interstate 215	Washington - I-10	184,000	87	178,000	86	2,506/1,991	7,924/6,295	25,059/19,905

[1] First value is without project implementation while second value is with project implementation.

63) When working within sensitive areas, portable noise barriers should be utilized to reduce produced noise to the extent feasible.

The amount of attenuation afforded by these measures will vary with the types of equipment used, its operating conditions, the type of terrain (i.e., highly developed areas versus open space), and the proximity to sensitive receptors.

Project Implementation

With the exception of the noise along the newly constructed segments along Washington and Barton, the implementation of the revised Circulation Element will not significantly change the noise along those roadways within the project area. However, many of the roads will carry volumes of traffic which will impact the various types of land use in their proximity. Though no roads are anticipated to increase their noise levels by a significant amount, the distance to an acceptable noise level can change considerably with minor changes in produced noise. For example, with project implementation Rancho Avenue is projected to raise from 72 to 74 dBA CNEL. This change of 2 dBA will change the distance to the 60 dBA CNEL level from 792 feet to 1,256 feet, a net change of 464 feet. Table 4.4-5 should be used to gauge the potential for impact to sensitive land uses and development within these land uses should be performed accordingly. Further, regardless of project implementation, 2010 noise levels will far exceed current noise levels due to substantial increases in traffic volumes and receptors which are not currently impacted will be. As setback cannot be changed to these existing receptors, noise walls and additional insulation may alleviate future concerns.

With regards to any future development, the impact to an individual parcel is beyond the scope of this document and would have to be addressed on a project-specific basis after reviewing the construction plans for building setback, decorative walls, etc. Still, new development in areas predicted to exceed 70 dBA CNEL should not be undertaken for sensitive land uses and development of dwellings in the 60 to 70 dBA CNEL areas should incorporate the following mitigation in their structural design.

64) Increased building setback (with noise abatement aided by placing parking between the structures and the road). For commercial applications, parked vehicles can add a modicum of noise attenuation. Facilities planning rear and/or side parking may be required to provide additional noise attenuation for vehicle-generated road noise.

65) Berms and soundwalls placed between the structures and the roads.

66) A decrease in the local speed limits and limiting the heavy trucks to non-rush hour traffic.

67) The roof system should have as a minimum 1/2" plywood sheeting (or equivalent) which is well fitted and caulked. Insulation with a rating of at least R-19 should be placed in attic spaces as applicable. The ceiling should also be well fitted, well sealed gypsum board of at least 1/2" thick (or equivalent).

68) Fireplaces and exhaust stacks, if utilized should be provided with well fitted dampers. Chimneys shall be topped with a metal cap to eliminate any line-of-sight aircraft noise.

69) In consistency with the General Plan, impacted noise zones will be restricted to non-residential/non-noise sensitive receptor uses. Prohibited uses include (but are not limited to) residential dwellings, schools, rest homes, and hospitals.

4.4.4 Residual Environmental Impacts

With implementation of the described mitigation measures, noise impacts remain adverse, but are not significant.

5. Cumulative Impacts

SECTION 5 - CUMULATIVE IMPACTS

CEQA requires that a cumulative analysis be conducted for the resources evaluated in the EIR (circulation/transportation, air quality, and noise). This cumulative assessment is meant to discuss the impact of the project relative to other existing, approved, proposed, or reasonably foreseeable projects occurring within the planning area and the surrounding region.

As stated in Section 4, the traffic study prepared for this project (the Circulation Element) included an assessment of cumulative impacts. Included in this cumulative baseline was the following development:

- 1,151 single-family dwelling units
- 203 multi-family dwelling units
- 465,000 square feet of commercial/retail space
- 120,000 square feet of office space
- 177,500 square feet of industrial space
- 888,000 square feet of hospital space
- 158,000 square feet of storage facilities

Since the traffic study prepared for the Circulation Element included cumulative impacts in its future conditions, and since all of the resources evaluated in detail were based on this traffic study, the impact assessment conducted in Section 4 already includes an assessment of cumulative impacts. Please refer to Sections 4.2 through 4.4 for details on short- and long-term impacts.

6. Alternatives to the Proposed Project

SECTION 6 - ALTERNATIVES TO THE PROPOSED PROJECT

This section of the EIR provides an environmental assessment of alternatives to the proposed project. The primary purpose of this section is to design alternatives that will reduce adverse or significant impacts identified during the environmental review of the proposed action.

6.1 SELECTION OF ALTERNATIVES

In Section 4 of this EIR, the only significant impact identified was a potential significant impact on air quality due to roadway construction. In most normal circumstances, this impact will not reach significant levels if the number of construction vehicles is maintained at less than six in any 8-hour period.

Since there are no significant impacts that can not typically be mitigated, their were no major issues left that any foreseeable alternative would make a measurable difference. For sake of comparison with the proposed project, an alternative cross-section design (larger street sections) that was evaluated early in the Circulation Element process will be reviewed. As will be shown in the following section, this alternative was not advantageous, since it required acquisition of additional land, move roadways closer to sensitive users, and did not measurably change any impacts on circulation/transportation or air quality. In fact, this alternative actually increased impacts on several resources.

As required by CEQA, the No Action Alternative was also evaluated. This alternative looks at the environmental impacts that would occur if the project was not approved.

6.2 NO ACTION ALTERNATIVE

6.2.1 Circulation/Transportation

As shown on Table 4.2-2, the no action alternative would result in significant impacts to 17 intersections, whereas the proposed action results in only one (prior to mitigation). The potential to mitigate the large number of intersections with the no action alternative is greatly diminished since this represents almost a fourth of the major intersections in the planning area. The impact on this resource is considered to be more adverse, and significant, in comparison with the proposed action.

6.2.2 Air Quality

Since this alternative would not relieve congestion to the same extent, or magnitude, of the proposed action, impacts on air quality would have a higher level of adversity.

6.2.3 Noise

The No Action Alternative would have similar to slightly higher impacts on the existing noise environment in comparison with the proposed action. Slightly fewer roadways would be extended/ expanded, but this would only limit the extent of short-term noise impacts (fewer locations where they would occur), and not the impact at each site.

6.2.4 Other Resource Areas

Under the No Action Alternative, roadway extension and expansions will still occur in accordance with the 1987 Circulation Element. Therefore, this alternative is expected to have impacts on Earth Resources, Hydrology and Drainage, Land Use, Public Services and Utilities, Biological Resources, Cultural Resources, and Aesthetics similar to those associated with the proposed action (see Section 4.1).

6.3 CROSS-SECTION EXPANSION ALTERNATIVE

6.3.1 Circulation/Transportation

With this alternative, the cross-sections used would allow for wider lane widths, but would not typically expand the number of lanes available to traffic. Therefore, the impacts on Circulation/Transportation resources would be equivalent to those described in Section 4.2 for the proposed project.

6.3.2 Air Quality

The improved congestion associated with this alternative would be similar to the relief provided by the proposed action, and therefore, impacts would be similar to the proposed action (see Section 4.3).

6.3.3 Noise

Utilizing an expanded cross-section for the major arterials would move actual traffic lanes closer to existing or planned sensitive receptors (such as homes), and would result in an incremental increase in the noise exposure at these receptors. Therefore, this alternative would result in Noise resource impacts greater in adversity to those described for the proposed project in both the short-term (construction) and long-term (project buildout).

6.3.4 Other Resource Areas

Under this alternative, roadway extension and expansions will be in the same locations specified for the proposed action. Therefore, this alternative is expected to have impacts on Earth Resources, Hydrology

and Drainage, Public Services and Utilities, Biological Resources, Cultural Resources, and Aesthetics similar to those associated with the proposed action. One resource, Land Use, is expected to have a adverse, and potentially significant impact occur due to the acquisition throughout the City of expanded rights-of-way. These acquisitions will result in the removal of private lands for expansions of roadways, and coupled with the increased noise potential, will create an adverse impact.

7. Long-Term Implications of the Proposed Project

SECTION 7 - LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

7.1 SHORT-TERM VERSES LONG-TERM PRODUCTIVITY

If the proposed City of Colton Circulation Element is approved and implemented, a variety of short-term and long-term impacts will occur on a local basis. During construction, portions of the surrounding lands will be temporarily impacted by dust and noise over the anticipated project construction period and cease upon buildout. During construction, impacts could occur from wind and water erosion of soils during grading. Construction related traffic will increase on local streets, intersections and freeway interchanges. There will be an increase in air pollution, mainly dust generation caused by grading and construction activities. These disruptions, however, are considered to be short-term impacts and can be mitigated to the extent that is feasible.

The long-term effect of the project implementation is an overall beneficial impact on Circulation/ Transportation and Air Quality. Although one intersection in the planning area will remain significantly impacted by the long-term growth planned for in the City's General Plan, this is a significant reduction from the 17 intersections adversely impacted without the project. Connected with this improvement in traffic flow is an overall improvement in congestion. The reduced congestion with the updated Element will have a beneficial impact on future air quality. Noise impacts with the project will increase due to expanded roadway pavement near sensitive receptors.

The proposed project will provide infrastructure needed to support the goals and policies presented within the City's current General Plan.

7.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Implementation of the proposed project will result in the following irreversible environmental changes:

- Permanent commitment of land which will be physically altered by grading and construction activities to create new paved roads.

- Permanent commitment of various new materials such as petroleum products, gravel and sand for construction of roadways and ongoing maintenance. The development and maintenance of the site for urban use is considered a nonrenewable investment of such resources, and use of them will have cumulative impacts.

- The energy utilized for project construction as well as the additional energy consumed in maintaining the project represents permanent energy commitments.

- The increased requirements on public services and utilities due to the project are a permanent commitment of these resources.

7.3 GROWTH INDUCING IMPACTS OF THE PROPOSED PROJECT

The proposed project is not considered to be growth inducing for the following reasons:

- The Circulation Element, and the goals and policies contained within, are designed to handle the growth already approved by the City's 1987 General Plan.
- The Circulation Element does not contain any changes to the existing infrastructure master plans devised to handle the growth planned for by the 1987 General Plan.
- Because this plan has been designed in response to the General Plan Land Use Element, no additional capacities are being designed into the project that would encourage additional growth.

8. Report Preparation Resources

SECTION 8 - REPORT PREPARATION RESOURCES

8.1 EIR INFORMATION CONTACTS

Public agencies, organizations and individuals have been contacted during the preparation of this EIR. Forty-three separate agencies and organizations, as shown on Table 8.1-1, received a copy of the Notice of Preparation (NOP) and Initial Environmental Study for the City of Colton Circulation Element.

Each agency and organization was provided with a 30-day review period, and the opportunity to provide written comments on the scope of the EIR. Of those consulted, comment letters were received from the six agencies/organizations. The text of each of these letters is contained in Appendix H of this document. The following provides a summary of each letter, and the response taken.

- **Lt. Col. Thomas Howell Norton AFB, Headquarters 63D Airlift Wing**

  The 63D Airlift Wing had no comment on the project.

- **Connie Day South Coast Air Quality Management District**

  SCAQMD comments in their letter that the proposed project is below the threshold levels for project review, but states that a circulation element could potentially have a significant impact on air quality (positive and negative). Section 4.3 of this EIR fully addresses air quality impacts, and includes assessments outlined in this letter.

- **Greg Gage Colton Unified School District**

  The letter from the school district makes two major points. First is a discussion that the EIR should evaluate the adequacy of existing pedestrian facilities and the need for additional safety precautions near schools. The second comment provides a list of specific sign locations and types desired to enhance safety.

  In regards to this letter, the purpose of the EIR is to evaluate the future impact created from implementation of the proposed project (the Circulation Element), and does not evaluate the City's decisions on policy matters. The comments on specific sign types and locations is most likely too site specific for a general plan element, but these comments have been provided to the City's consultant for evaluation for inclusion in the Circulation Element. Overall, the Circulation Element will provide more room and capacity on roadways for buses turning onto major streets and into schools. The Circulation Element calls for the use of adequate design criteria for curb returns, driveways, and improved circulation of larger vehicles (i.e., school buses). The cross-sections provided in the Element also provide for adequate sidewalks on all urban roadways.

Table 8.1-1

AGENCIES AND ORGANIZATIONS CONSULTED

Name/Agency	Agency2	Address	City, State, Zip
City of Riverside	Planning Department	3900 Main Street	Riverside, CA 92522
San Bernardino County	Planning Department	385 N. Arrowhead Ave, 3rd Floor	San Bernardino, CA 92415
San Bernardino County	Health Department	351 N. Mt View Avenue	San Bernardino, CA 92415
Kent Van Gelder	Rialto Unified Schoold Dist.	182 E. Walnut Avenue	Rialto, CA 92376
West San Bernardino County	Water District	P.O. Box 3003	Redlands, CA 92373-0306
Southern California Gas Co.		P.O. Box 3003	Redlands, CA 92373-03036
General Telephone	Forecasing Dept-RC 6003	Box 2920	Pamona, CA 91766
Pacific Telephone	Right of Way Office	3939 E. Coronado, 1st Floor	Anaheim, CA 92807
City of San Bernardino	Planning Department	300 North "D" Street	San Bernardino, CA 92418
City of Loma Linda	Community Development Dept.	25541 Barton Road	Loma Linda, CA 92354
Riverside County	Planning Department	4080 Lemon Street, 9th Floor	Riverside, CA 92501
San Bernardino County	Flood Control District	825 East Third Street	San Bernardino, CA 92410
Colton Unified School Dist.		1212 Valencia Drive	Colton, CA 92324
Riverside/Highland Water Co.		23009 Washington Street	Colton, CA 92324
San Bernardino Valley	Municipal Water District	1350 South "E" Street	San Bernardino, CA 92408
Southern California Edison Co.		1190 Durfee Avenue, Suite 200	S. El Monte, CA 91733
Pacific Bell		1001 Wilshire Blvd., Rm. B100	Los Angeles, CA 90017
City of Grand Terrace	Planning Department	22795 Barton Road	Grand Terrace, CA 92324
City of Rialto	Planning Department	150 South Palm	Rialto, CA 92376
Community Planner	Base Civil Engineering	Norton AFB, CA	
Santa Fe Pacific Pipeline Co.		2319 S. Riverside Avenue	Bloomington, CA 92316
Dept. of Housing & Urban Dev.		1849 Commerce Ctr East, Ste. B	San Bernardino, CA 92408
Secretary of Resources		1416 Ninth Street, Room 1311	Sacramento, CA 95814
Riverside-Corona Resource	Conservation District	2023 Chicago Avenue, B-14	Riverside, CA 92507
Cablevision		P.O. Box 710	Redlands, CA 92373
CalNev Pipeline Co.	Attn: Jeff	Box 6346	San Bernardino, CA 92412
State Clearinghouse	Office of Planning & Research	1400 Tenth Street	Sacramento, CA 95814
United States Army Corps	of Engineers	300 N. Los Angeles Street, Rm. 6655	Los Angeles, CA 90012
Ken Wall	San Bernardino MSC	1900 W. Redlands Blvd.	San Bernardino, CA 92403-9334
SCAG		600 S. Commonwealth Ave., Ste. 1000	Los Angeles, CA 90005
Southern California Edison Co.	Room 515-Land Rights Sec.	100 N. Long Beach Blvd.	Long Beach, CA 90801
East Valley Airport	Land Use Commission	385 N. Arrowhead Avenue	San Bernardino, CA 92415-0182
United States Postmaster	Attn: Val	265 N. Seventh Street	Colton, CA 92324-2897
C. Glenn Wilson, P.E.	GTS Associates, Inc.	1685 Country Club Drive	Redlands, CA 92373
Caltrans	District 8	247 West 3rd Street	San Bernardino, CA 92402
South Coast Air Quality	Management District	21865 E. Copley Drive	Diamond Bar, CA 91765-4182
United States Postal Service	Attn: Ernest Foster	390 W. Fifth Street, Rm. 201	San Bernardino, CA 92401-9601
Omnitrans		1700 West 5th Street	San Bernardino, CA 92410
Riverside Co. Flood Control	Attn: Frank Peairs	1995 Market Street	Riverside, CA 92501
SANBAG		472 North Arrowhead Ave.	San Bernardino, CA 92401
Riverside Co. Trans. Commission		3560 University Ave., Suite 100	Riverside, CA 92501
Riverside Transit Agency		1825 Third Street	Riverside, CA 92507
Department of Fish and Game	District 5	330 Golden Shore, Suite 50	Long Beach, CA 90802

- **Maria Muett** **City of Grand Terrace, Community Development Dept.**

Comments from the City talked about interim fixes for Barton Road @ Mt. Vernon Avenue, flood impacts relative to the Seven Oaks Dam, and impacts from road closures.

The first comment relates to a policy issue, and was provided to the Circulation Element consultant. Relative to the flood control issue, the Circulation Element does not propose any modifications to existing flood control plans. The existing flood control master plan is considered by the City to adequately address, and mitigate, all impacts related to flooding, and was thereby not evaluated further. Specific updates to the FIRM mapping should be coordinated through the City's Public Works Department. Finally, regarding road closures, it is not possible at this time to specify impacts on individual roadways due to closures since the timing and method of construction are not known at this time. When certain streets have lane closures or detours, the City will prepare traffic control plans. It is expected that any closures or detours will have a negligible impact on the City of Grand Terrace.

- **Martha Tarlton** **County of Riverside, Transportation Department**

The County provided comments relative to traffic impacts on Riverside County roadways due to this project.

Reche Canyon Road is projected to carry 33,000 vehicles per day by the Year 2010. Due to the heavy demand of this facility, two lanes would not be adequate. Reche Canyon Road has long continuity, parallels the I-215 Freeway, and connects a high housing area to a high employment area, making this a popular interconnection between Riverside and San Bernardino Counties.

The SCAG regional (RIV-SAN) traffic forecast model was utilized to perform the traffic projections for the update of the Circulation Element. For the Year 2010, region-wide growth was addressed in the traffic forecasts, so any development impacting Riverside Avenue/North Main Street should have been included in the projections. The projection for the Year 2010 for Riverside Avenue at the Riverside/San Bernardino County boundary is expected to be 34,000 vehicles per day, which can be accommodated by the current capacity of this facility.

- **Fred Worthley** **State of California, Department of Fish and Game**

The letter from the Department of Fish and Game requests a full disclosure of impacts on the flora and fauna impacted by the project.

Because of the programmatic nature of this document, and the lack of true alignments for some of the roadways proposed, a full biological study was not conducted for this EIR.

For the majority of the roadway improvements proposed by the Element, all work will be done within an existing, and previously disturbed right-of-way. Only a few roadways, shown on

Figure 4.1-1, will be expanded into undisturbed areas. These roadways, and the expansion of bridges shown on Figure 4.1-2, will be the only projects with a potential impact on biology. For each of these projects, a site specific environmental assessment, including a cumulative impacts assessment, will be required for biological and cultural resources.

8.2 EIR PREPARERS

This EIR was prepared under contract to Mohle, Grover and Associates, who in turn have contracted with the City of Colton for the preparation of the Circulation Element and focused Program EIR. The Major contributors to the EIR are as follows:

City of Colton	Lead Agency
Jaime Aguilera	Community Development Director
Hani Gabriel	Principal Planner
Chambers Group, Inc.	EIR Consultant
Thomas Ryan	Project Principal
Richard Rust, AICP	Project Manager
Todd Brody	Senior Environmental Scientist
Paula Fell	Senior Environmental Analyst
Teri Van Huss	Report Production Coordinator
Mary Hudson	Graphics
Dawn Witt	Report Production

8.3 REFERENCES RESEARCHED AND CITED

California Air Resources Board
1987

City of Colton
1987 Colton General Plan, Volume 1: Community Profile Report.

Colton General Plan, Volume 2: General Plan.

Colton General Plan, Volume 3: Environmental Impact Report.

Environmental Protection Agency (EPA)
1985 AP-42 Compilation of Air Pollutant Factors, Volume I: Stationary Point and the Area Sources, Fourth Edition, September 1985.

AP-42 Compilation of Air Pollutant Factors, Volume II: Mobile Sources, Fourth Edition, September 1985.

1971 Bolt, Beranek, and Newman. Noise From Construction Equipment and Operations, Building Equipment, and Home Appliances, December 31, 1971.

FHWA Noise Program
1987 Version OFA, January 21, 1985, Modified by Cel Alfafara, July 1987, Calveno Version

South Coast Air Quality Management District
1987 Air Quality Handbook

South Coast Air Quality Management District
1992 Draft CEQA Air Quality Handbook, May 1992

State of California Air Resources Board
1987 EMFAC7PC Air Quality Analysis Model, Technical Support Division, Issue Date: 1987

APPENDICES

Appendix A: Trip Generation

Year 2010
Socioeconomic Data

CITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR [illegible]10 SOCIO-ECONOMIC DATA
PER TRAFFIC ANALYSIS ZONE

TRAFFIC ANALYSIS ZONE	GROUP QUARTER POP.	TOTAL SDU's	TOTAL OCCUPIED SDU's	TOTAL MDU's	TOTAL OCCUPIED MDU's	RETAIL EMP.	TOTAL EMP.	TOTAL POP.	INCOME ('67$)
1	0	1248	560	956	512	63	63	2451	6528
2	0	1110	807	1753	447	28	528	2457	9523
3	0	1908	857	2440	1307	82	608	4909	6528
4	0	756	550	1286	328	0	0	1759	9523
5	0	1174	527	791	424	119	565	2182	6528
6	0	1290	939	43	11	0	0	987	9523
7	31	291	173	736	282	62	62	1608	6760
8	31	135	80	0	0	5	44	48	6760
9	31	281	167	738	283	21	21	1608	6760
10	31	1207	717	243	93	5	737	918	6760
11	31	323	192	1268	486	11	11	2706	6760
12	31	1551	921	243	93	5	737	1037	6760
13	31	1082	643	981	376	0	0	2383	6760
14	31	489	291	2411	925	12	12	5103	6760
15	31	937	556	0	0	0	183	327	6760
16	31	624	371	0	0	0	0	218	6760
17	17	48	23	0	0	0	844	63	4375
18	17	48	23	0	0	0	844	63	4375
19	17	516	254	0	0	75	108	693	4375
20	17	598	294	98	46	96	187	904	4375
21	17	95	47	980	459	48	81	1134	4375
22	17	442	217	303	142	26	218	904	4375
23	17	156	77	18	8	18	47	230	4375
24	17	1271	626	917	430	40	236	2649	4375
25	17	258	127	828	388	56	476	1197	4375
26	271	637	432	333	120	12	37	1232	10105
27	271	354	240	2222	800	7	7	4206	10105
28	271	250	170	971	350	0	0	1937	10105
29	271	800	542	0	0	0	0	823	10105
30	271	1573	1066	0	0	0	0	1618	10105
31	271	27	18	0	0	3	13	29	10105
32	271	27	18	0	0	104	120	29	10105
33	271	0	0	0	0	4	59	0	10105
34	271	11	7	0	0	3	6667	12	10105
35	271	22	15	0	0	8	33	23	10105
36	271	27	18	0	0	16	71	29	10105
37	0	133	67	1732	819	20	20	1370	8366
38	0	243	122	0	0	0	0	462	8366
39	0	548	275	4319	2041	0	0	3824	8366
40	0	431	216	0	0	56	56	821	8366
41	0	1567	786	0	0	0	0	2977	8366
42	0	971	487	0	0	0	0	1848	8366
43	0	399	200	0	0	13	13	760	8366
44	0	470	236	0	0	0	0	893	8366
45	0	478	240	0	0	0	0	909	8366
46	0	1120	562	0	0	26	112	2130	8366
47	0	517	259	0	0	0	0	980	8366
48	0	1285	645	162	76	62	62	2546	8366
49	0	1057	531	0	0	0	0	2012	8366
50	0	78	39	0	0	0	2	149	8366
51	0	486	244	115	55	0	244	996	8366
52	0	642	322	1386	655	0	28	2115	8366
53	0	117	59	46	22	0	0	252	8366
54	0	298	149	1155	546	9	41	1309	8366
55	0	0	0	0	0	0	40	0	8366
56	0	188	94	0	0	0	0	359	8366
57	0	352	177	115	55	0	0	744	8366
58	0	70	35	208	98	0	0	267	8366
59	0	227	114	92	44	0	0	493	8366
60	0	149	75	1640	775	0	0	1340	8366

SDU - single family dwelling unit
MDU - multiple family dwelling unit
POP. - population
EMP. - employment

Source: Southern California Association of Governments, 1992.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 SOCIO-ECONOMIC DATA
PER TRAFFIC ANALYSIS ZONE

TRAFFIC ANALYSIS ZONE	GROUP QUARTER POP.	TOTAL SDU's	TOTAL OCCUPIED SDU's	TOTAL MDU's	TOTAL OCCUPIED MDU's	RETAIL EMP.	TOTAL EMP.	TOTAL POP.	INCOME ('67$)
61	0	110	55	69	33	0	0	252	8366
62	0	0	0	0	0	0	79	0	8366
63	0	149	75	0	0	0	0	282	8366
64	0	70	35	416	196	0	0	400	8366
65	0	125	63	92	44	0	0	298	8366
66	0	125	63	185	87	0	0	359	8366
67	0	102	51	92	44	2	2	252	8366
68	0	78	39	92	44	23	23	210	8366
69	0	141	71	185	87	16	43	385	8366
70	0	157	79	162	76	5	32	400	8366
71	0	112	85	234	48	0	0	358	8190
72	0	100	76	0	0	2	390	188	8190
73	0	171	131	37	7	0	0	346	8190
74	0	41	31	0	0	0	200	77	8190
75	0	83	63	283	58	0	16	334	8190
76	0	114	87	25	5	6	394	231	8190
77	0	57	43	92	19	0	0	166	8190
78	0	71	54	111	22	0	0	204	8190
79	0	93	71	0	0	1	1	176	8190
80	0	20	15	0	0	0	45	38	8190
81	0	20	15	0	0	0	45	38	8190
82	0	10	8	12	2	0	45	27	8190
83	0	39	29	37	7	0	0	97	8190
84	0	20	15	0	0	0	45	38	8190
85	0	22	17	62	12	0	0	81	8190
86	0	37	28	0	0	0	7	69	8190
87	0	22	17	12	2	0	43	50	8190
88	0	20	15	80	16	0	0	89	8190
89	0	35	26	37	7	0	0	89	8190
90	0	26	20	25	5	0	0	65	8190
91	0	26	20	0	0	0	45	50	8190
92	0	16	12	0	0	0	45	31	819[illegible]
93	0	18	14	37	7	0	13	58	81[illegible]
94	0	30	23	49	10	0	0	89	8190
95	0	20	15	12	2	2	45	46	8190
96	0	26	20	49	10	0	18	81	8190
97	0	29	16	0	0	0	227	16	4834
98	0	0	0	0	0	0	0	0	4834
99	0	49	27	0	0	0	118	26	4834
100	0	0	0	0	0	0	0	0	4834
101	0	0	0	0	0	0	227	0	4834
102	0	0	0	0	0	0	0	0	4834
103	0	127	70	33	14	0	0	118	4834
104	0	29	16	16	7	0	80	41	4834
105	0	127	70	33	14	0	0	118	4834
106	0	20	11	13	6	2	220	30	4834
107	0	10	5	333	138	25	105	523	4834
108	0	59	32	66	28	13	13	132	4834
109	0	39	22	0	0	13	240	21	4834
110	0	0	0	0	0	15	103	0	4834
111	0	20	11	23	10	0	34	46	4834
112	0	0	0	0	0	9	135	0	4834
113	0	49	27	13	6	9	89	46	4834
114	0	0	0	0	0	15	103	0	4834
115	0	0	0	0	0	53	53	0	4834
116	0	0	0	0	0	46	46	0	4834
117	0	0	0	0	0	0	487	0	4834
118	0	0	0	0	0	37	37	0	4834
119	0	0	0	0	0	37	37	0	4834
120	0	0	0	0	0	27	27	0	4834

SDU - single family dwelling unit
MDU - multiple family dwelling unit
POP. - population
EMP. - employment

Source: Southern California Association of Governments, 1992.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 SOCIO-ECONOMIC DATA
PER TRAFFIC ANALYSIS ZONE

TRAFFIC ANALYSIS ZONE	GROUP QUARTER POP.	TOTAL SDU's	TOTAL OCCUPIED SDU's	TOTAL MDU's	TOTAL OCCUPIED MDU's	RETAIL EMP.	TOTAL EMP.	TOTAL POP.	INCOME ('67$)
121	204	47	28	232	96	63	207	236	6290
122	204	110	66	0	0	1	1	185	6290
123	204	120	72	0	0	0	0	203	6290
124	204	89	54	0	0	0	0	148	6290
125	204	115	69	0	0	0	0	194	6290
126	204	167	101	155	64	63	63	388	6290
127	204	120	72	52	21	0	0	236	6290
128	204	73	44	39	16	0	0	148	6290
129	204	83	50	0	0	1	1	139	6290
130	204	63	38	219	91	0	0	255	6290
131	204	104	63	77	32	0	3	227	6290
132	204	130	79	116	48	0	0	300	6290
133	204	52	32	155	64	0	0	194	6290
134	204	73	44	103	43	4	26	194	6290
135	204	42	25	0	0	0	144	70	6290
136	204	47	28	26	11	0	3	97	6290
137	204	47	28	0	0	11	11	79	6290
138	204	78	47	116	48	0	0	212	6290
139	204	63	38	283	118	0	22	300	6290
140	204	83	50	232	96	11	69	300	6290
141	204	188	113	219	91	1	1	467	6290
142	204	26	16	52	21	5	154	79	6290
143	204	89	54	26	11	0	149	167	6290
144	204	188	113	116	48	4	170	397	6290
145	204	0	0	0	0	38	38	0	6290
146	204	47	28	0	0	10	159	79	6290
147	204	73	44	26	11	18	131	139	6290
148	204	0	0	0	0	19	19	0	6290
149	204	0	0	0	0	16	85	0	6290
150	204	0	0	0	0	16	85	0	6290
151	204	772	467	258	107	41	105	1476	6290
152	204	495	299	1738	723	24	77	2021	6290
153	204	1017	615	167	70	148	206	1827	6290
154	0	0	0	0	0	366	378	0	8461
155	0	213	149	522	146	79	123	713	8461
156	0	293	205	19	5	19	304	631	8461
157	0	223	156	180	50	309	699	526	8461
158	0	14	10	0	0	0	1219	28	8461
159	0	0	0	0	0	1252	2636	0	4921
160	0	171	106	155	49	362	1111	381	4921
161	0	0	0	0	0	1069	1902	0	4921
162	0	0	0	0	0	358	754	0	4921
163	0	0	0	0	0	1852	3444	0	0
164	0	306	0	0	0	521	2746	0	0
165	0	34	0	0	0	1582	4126	0	0
166	7	44	24	0	0	0	298	83	9799
167	7	19	10	0	0	1	2299	38	9799
168	7	0	0	0	0	5	5112	0	9799
169	7	545	298	554	229	7	4944	1502	9799
170	62	218	119	0	0	0	448	185	9799
171	62	191	104	0	0	11	11	161	9799
172	62	2232	1222	0	0	56	56	1918	9799
173	62	817	447	0	0	68	68	701	9799
174	62	708	388	0	0	0	0	605	9799
175	62	735	402	4475	1854	710	4570	9512	9799
176	22	347	271	612	127	27	48	1039	6604
177	22	291	228	0	0	0	394	819	6604
178	22	458	358	0	0	31	294	1285	6604
179	22	0	0	0	0	0	61	0	6604
180	22	102	80	0	0	3	27	287	6604

SDU - single family dwelling unit
MDU - multiple family dwelling unit
POP. - population
EMP. - employment

Source: Southern California Association of Governments, 1992.

ITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 SOCIO-ECONOMIC DATA
PER TRAFFIC ANALYSIS ZONE

TRAFFIC ANALYSIS ZONE	GROUP QUARTER POP.	TOTAL SDU's	TOTAL OCCUPIED SDU's	TOTAL MDU's	TOTAL OCCUPIED MDU's	RETAIL EMP.	TOTAL EMP.	TOTAL POP.	INCOME ('67$)
181	22	162	127	490	102	44	72	506	6604
182	22	157	123	734	153	14	42	519	6604
183	22	74	58	0	0	59	59	206	6604
184	22	143	112	0	0	0	61	403	6604
185	22	0	0	0	0	39	67	0	6604
186	22	88	69	0	0	0	542	246	6604
187	22	0	0	0	0	0	263	0	6604
188	22	65	51	0	0	0	542	184	6604
189	41	8	3	116	64	130	359	167	11706
190	41	8	3	377	211	130	359	544	11706
191	41	8	3	116	64	137	366	167	11706
192	41	68	25	715	399	403	1555	1038	11706
193	53	110	41	0	0	83	83	20	11706
194	41	173	65	0	0	0	915	26	11706
195	41	445	167	957	534	538	1690	1443	11706
196	53	349	131	1149	648	713	1578	2111	11706
197	53	1321	496	1131	637	713	1578	2256	11706
198	41	181	68	0	0	170	297	27	11706
199	10	244	0	0	200	260	1015	503	11706
200	61	0	0	0	0	319	1643	0	11706
201	61	0	0	0	0	2153	2816	0	11706
202	61	795	299	0	0	0	0	1138	11706
203	61	557	209	0	0	0	0	796	11706
204	61	84	31	86	49	0	330	178	11706
205	10	0	0	0	0	117	872	0	11706
206	10	0	0	0	0	117	872	0	11706
207	10	0	0	0	0	117	872	0	11706
208	61	0	0	1606	917	32	41	1091	11706
209	61	186	70	471	269	160	160	586	11706
210	61	539	202	0	0	0	0	771	11706
211	61	0	0	0	0	0	330	0	11706
212	61	374	140	0	0	0	330	534	11706
213	77	222	83	616	354	0	0	989	11706
214	45	259	97	0	0	664	695	262	11706
215	45	2411	906	760	456	1147	5150	3475	11706
216	77	1355	509	117	67	1207	2936	1473	11706
217	77	598	224	773	444	0	0	1552	11706
218	77	1386	520	773	444	0	0	2323	11706
219	558	956	375	3031	2063	0	0	2891	7504
220	558	4233	1658	1653	1124	709	5234	8170	7504
221	558	56	22	0	0	0	0	100	7504
222	0	0	0	0	0	536	1129	0	4921
TOTALS	14030	66433	34528	61141	28058	21366	93048	152969	8372

SDU - single family dwelling unit
MDU - multiple family dwelling unit
POP. - population
EMP. - employment

Source: Southern California Association of Governments, 1992.

Year 2010
Vehicle Trips

CITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 VEHICLE TRIP GENERATION
PER TRAFFIC ANALYSIS ZONE

TRAFFIC ANALYSIS ZONE	AM PEAK PERIOD			PM PEAK PERIOD			24 HOUR	
	inbound	outbound	internal	inbound	outbound	internal	two-way	internal
1	200	558	2	1160	823	7	7714	32
2	383	699	5	1335	1001	12	8841	41
3	585	1024	9	2133	1693	29	14693	118
4	100	461	1	855	496	4	5260	13
5	444	556	2	1312	1176	10	9534	41
6	60	343	1	693	370	2	4159	7
7	166	304	1	752	608	4	5345	16
8	27	16	0	191	126	0	1237	0
9	86	277	0	581	426	3	3933	11
10	381	327	1	655	664	2	4666	10
11	146	426	0	915	638	7	6216	23
12	363	354	1	763	711	4	5500	13
13	139	568	2	1168	681	4	7105	20
14	269	696	5	1569	1128	15	10732	69
15	96	99	0	194	172	1	1377	3
16	16	64	0	121	70	0	740	0
17	340	44	0	119	370	0	1575	0
18	343	46	0	196	461	0	2143	0
19	137	206	0	483	423	1	3545	5
20	207	259	2	753	651	3	5493	13
21	127	209	0	637	498	1	4406	7
22	166	198	1	505	444	1	3526	4
23	39	61	1	220	148	0	1480	4
24	262	547	3	1168	861	7	7914	31
25	315	262	0	665	663	2	5069	8
26	103	365	0	685	407	0	4159	5
27	225	657	4	1362	941	13	9095	48
28	106	345	0	682	431	3	4383	10
29	54	290	0	505	276	1	3035	4
30	105	557	3	1014	534	4	5973	18
31	5	12	0	19	23	0	165	0
32	131	59	0	239	336	0	2330	2
33	28	4	0	7	37	0	154	0
34	2559	243	0	766	2899	0	11580	0
35	24	11	0	27	38	0	258	0
36	48	21	0	56	79	0	521	0
37	94	309	1	610	406	3	3932	11
38	26	113	0	210	138	0	1315	3
39	198	813	2	1553	926	11	9712	44
40	109	236	0	504	387	1	3498	5
41	173	712	2	1334	817	11	8410	45
42	95	442	0	862	492	3	5199	13
43	54	195	1	378	256	1	2428	5
44	52	218	0	411	246	0	2556	2
45	67	227	0	415	260	1	2633	5
46	173	523	2	1032	685	10	6633	29
47	57	244	0	453	269	2	2809	6
48	225	627	3	1326	882	10	8589	41
49	120	493	1	915	556	3	5716	16
50	10	37	0	108	54	0	641	0
51	143	241	0	529	406	0	3493	3
52	140	473	1	898	525	3	5550	15
53	16	65	0	114	67	0	689	0
54	88	293	0	567	372	1	3652	5
55	24	1	0	37	33	0	287	0
56	21	91	0	227	130	0	1413	0
57	44	177	0	362	217	1	2251	1
58	13	61	0	107	70	0	686	0
59	35	116	0	216	116	0	1320	0
60	80	286	0	549	345	2	3478	7
61	12	60	0	108	62	0	669	0
62	32	2	0	6	39	0	129	0

NOTE: am peak period is for a two-hour duration and pm peak period is for a three-hour duration.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 VEHICLE TRIP GENERATION
PER TRAFFIC ANALYSIS ZONE

TRAFFIC ANALYSIS ZONE	AM PEAK PERIOD			PM PEAK PERIOD			24 HOUR	
	inbound	outbound	internal	inbound	outbound	internal	two-way	internal
63	15	69	0	132	67	0	794	0
64	18	88	0	192	116	0	1159	0
65	22	73	0	134	81	0	826	0
66	22	81	0	151	86	0	938	0
67	18	58	0	117	76	0	736	1
68	46	58	0	139	119	0	1038	1
69	46	94	0	193	164	0	1398	0
70	34	92	0	181	114	0	1146	0
71	19	90	0	162	84	0	966	0
72	170	76	0	147	230	0	1299	2
73	17	99	0	184	98	0	1071	0
74	81	24	0	55	106	0	549	0
75	30	72	0	139	91	0	872	0
76	185	81	0	176	263	0	1495	0
77	6	40	0	74	34	0	444	0
78	12	54	0	95	58	1	588	2
79	13	54	0	103	51	0	586	0
80	23	15	0	21	32	0	181	0
81	24	12	0	22	26	0	187	0
82	19	6	0	12	29	0	134	0
83	8	25	0	41	22	0	271	0
84	25	12	0	19	29	0	189	0
85	3	19	0	69	35	0	419	0
86	4	21	0	110	59	0	668	0
87	13	14	0	82	59	0	506	0
88	5	21	0	55	32	0	328	0
89	2	24	0	60	36	0	369	0
90	2	18	0	195	98	0	1153	0
91	22	15	0	27	33	0	213	0
92	15	9	0	22	26	0	159	0
93	9	14	0	96	55	0	589	0
94	5	21	0	76	39	0	450	0
95	20	15	0	93	73	0	650	0
96	7	20	0	36	25	0	234	0
97	96	8	0	18	88	0	380	0
98	0	0	0	0	0	0	0	0
99	36	10	0	20	61	0	243	0
100	0	0	0	0	0	0	0	0
101	105	3	0	14	98	0	363	0
102	0	0	0	0	0	0	0	0
103	4	36	0	57	32	0	360	0
104	32	13	0	21	43	0	235	0
105	4	32	0	69	29	0	378	0
106	91	14	0	49	110	0	506	0
107	91	80	0	226	219	0	1810	1
108	21	30	0	213	140	0	1362	0
109	95	14	0	44	137	0	625	0
110	53	7	0	38	78	0	400	0
111	14	10	0	19	29	0	163	0
112	48	4	0	27	81	0	325	0
113	33	16	0	61	62	0	469	0
114	56	6	0	38	86	0	434	0
115	67	21	0	118	165	0	1115	0
116	50	20	0	204	190	0	1602	0
117	189	5	0	304	345	0	2401	0
118	42	14	0	204	176	0	1574	0
119	40	15	0	429	295	0	2902	0
120	28	9	0	105	91	0	874	0
121	148	83	0	274	314	2	2302	5
122	15	51	0	93	57	0	586	0
123	14	58	0	268	139	0	1596	0
124	10	40	0	123	70	0	760	0

NOTE: am peak period is for a two-hour duration and pm peak period is for a three-hour duration.

CITY OF 'OLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 VEHICLE TRIP GENERATION
PER TRAFFIC ANALYSIS ZONE

TRAFFIC ANALYSIS ONE	AM PEAK PERIOD			PM PEAK PERIOD			24 HOUR	
	inbound	outbound	internal	inbound	outbound	internal	two-way	internal
125	10	51	0	105	60	0	580	0
126	96	129	0	307	297	1	2404	4
127	16	59	0	112	64	0	670	0
128	3	36	0	68	37	0	387	0
129	3	40	0	70	43	0	446	0
130	13	53	0	100	63	0	636	0
131	13	57	0	103	54	0	612	0
132	16	70	0	134	88	0	847	0
133	11	42	0	73	44	0	485	0
134	23	49	0	87	77	0	619	0
135	59	22	0	45	86	0	423	0
136	4	23	0	42	31	0	270	0
137	20	26	0	64	51	0	460	0
138	9	49	0	86	55	0	561	0
139	19	67	0	125	78	0	760	0
140	48	75	0	155	125	0	1052	0
141	21	108	0	199	124	0	1272	0
142	69	22	0	91	109	0	743	0
143	47	45	0	89	97	0	641	0
144	97	102	0	222	203	0	1613	0
145	42	15	0	119	134	0	999	0
146	65	26	0	303	222	0	2010	0
147	79	44	0	252	220	1	1814	2
148	28	9	0	183	134	0	1303	0
149	38	7	0	34	70	0	409	0
150	38	7	0	111	102	0	845	0
151	165	425	2	841	570	4	5454	16
152	162	438	1	955	624	5	6141	19
153	303	535	3	1195	986	9	8568	39
154	409	171	4	782	1121	6	7709	32
155	157	205	1	503	452	3	3750	11
156	166	187	0	410	355	0	2875	3
157	567	311	2	1023	1319	7	9108	39
158	476	59	0	183	570	0	2391	0
159	1914	584	20	2841	4301	80	28286	337
160	772	309	6	1128	1554	18	10431	61
161	1504	496	15	2438	3544	57	23720	238
162	587	168	1	859	1221	5	8319	24
163	2734	871	45	4223	6297	177	41809	739
164	1488	315	4	1418	2571	16	15043	64
165	2651	786	31	3646	5744	124	36876	510
166	117	33	0	65	146	0	697	0
167	914	93	2	317	1078	8	4395	26
168	1939	163	0	547	2200	0	8582	0
169	2047	621	17	1470	2774	35	14183	120
170	187	82	1	154	264	1	1435	5
171	18	59	0	179	106	0	1142	0
172	172	662	5	1320	804	18	8246	80
173	132	269	2	605	458	4	4122	19
174	35	208	1	368	201	0	2198	3
175	2815	1789	120	4823	5833	377	40259	1511
176	97	269	0	523	372	3	3472	8
177	202	212	1	424	397	3	3096	6
178	227	334	0	769	590	3	5292	12
179	21	0	0	22	32	0	198	0
180	21	72	0	191	114	0	1209	0
181	86	141	0	376	287	0	2620	1
182	72	130	0	269	206	0	1887	0
183	92	79	0	257	259	1	2052	4
184	43	101	0	195	127	0	1193	0
185	48	17	0	84	125	0	817	0
186	228	81	0	179	327	1	1606	2

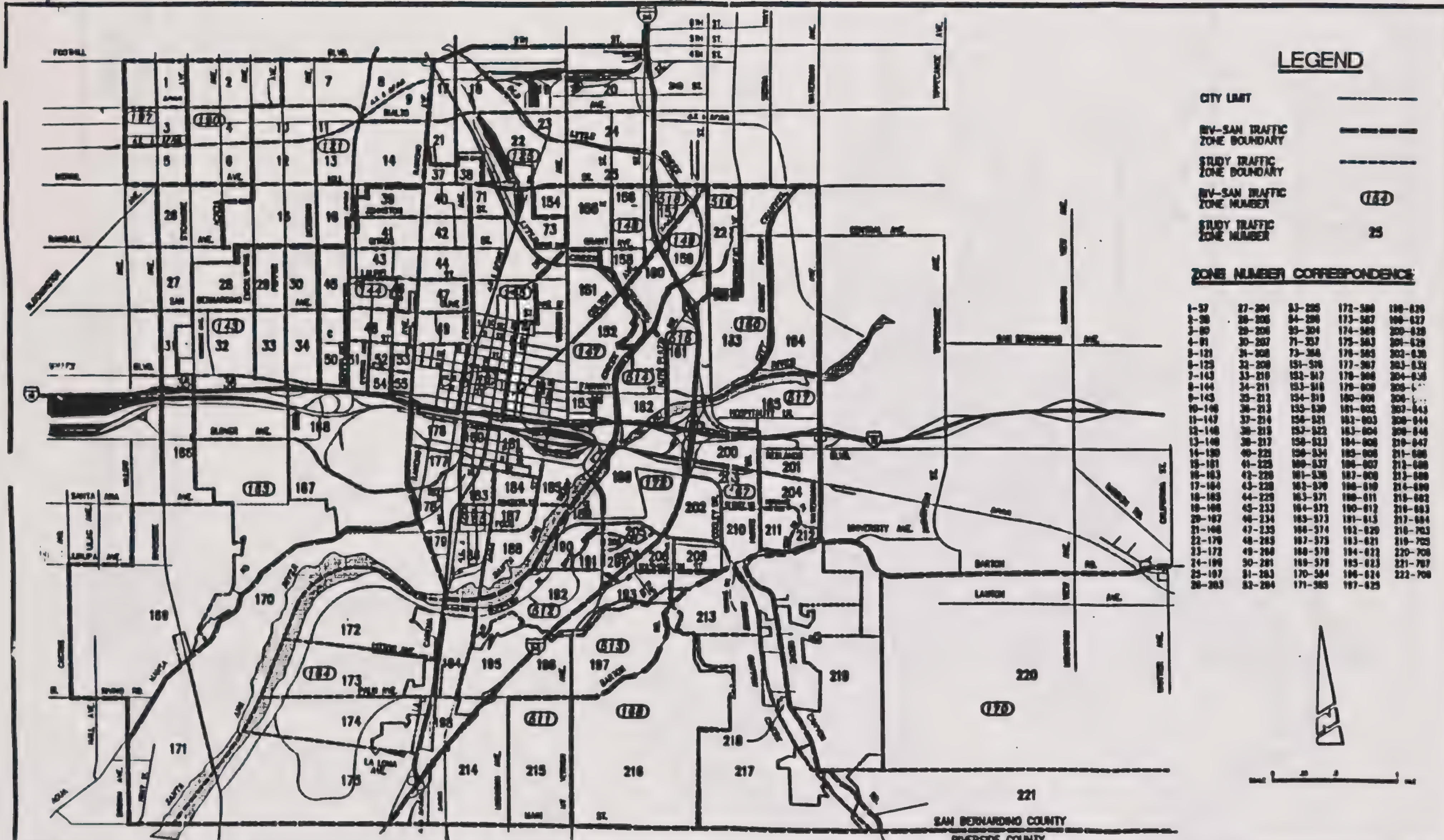
NOTE: am peak period is for a two-hour duration and pm peak period is for a three-hour duration.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 VEHICLE TRIP GENERATION
PER TRAFFIC ANALYSIS ZONE

TRAFFIC ANALYSIS ZONE	AM PEAK PERIOD			PM PEAK PERIOD			24 HOUR	
	inbound	outbound	internal	inbound	outbound	internal	two-way	internal
187	117	2	0	56	137	0	636	0
188	230	64	0	170	300	0	1638	3
189	322	150	1	570	771	1	5240	10
190	370	210	1	711	871	3	6165	14
191	349	134	0	600	786	2	5424	11
192	1238	607	11	1977	2714	34	18033	140
193	93	41	0	181	251	1	1746	3
194	376	46	0	138	440	0	1799	0
195	771	493	5	1218	1489	19	10128	69
196	1296	808	24	2517	3154	84	21998	336
197	1324	946	31	2779	3224	117	23276	475
198	382	147	0	577	798	5	5618	19
199	654	259	6	905	1295	9	8315	44
200	867	191	2	806	1513	5	8700	25
201	2617	963	52	4565	6515	217	44678	903
202	65	278	1	518	314	1	3277	6
203	40	194	0	391	229	0	2420	2
204	127	51	0	118	190	0	1045	0
205	453	81	0	464	770	1	4659	3
206	407	78	0	501	730	0	4626	0
207	443	79	0	344	685	0	3781	2
208	103	262	1	546	391	2	3611	10
209	247	212	0	635	641	6	5076	18
210	47	188	0	376	226	1	2336	3
211	130	4	0	57	161	0	703	0
212	175	147	0	326	323	0	2343	1
213	46	216	1	429	277	1	2674	4
214	860	447	17	1749	2254	61	16077	252
215	3188	1775	132	5037	6587	390	43723	1550
216	2214	1123	83	3732	4960	303	33440	1208
217	87	352	2	640	393	7	4094	29
218	119	576	3	1077	635	15	6562	59
219	154	649	5	1281	751	22	7905	91
220	2989	2159	140	5332	6139	400	42996	1589
221	8	23	0	42	28	0	255	0
222	849	254	2	1260	1912	12	12524	53
TOTALS	61440	47023	861	126268	139191	2892	1017477	11713

NOTE: am peak period is for a two-hour duration and pm peak period is for a three-hour duration.

Traffic Analysis Zone Maps



CITY OF COLTON
GENERAL PLAN CIRCULATION ELEMENT UPDATE
TRAFFIC ANALYSIS ZONES

CENTRAL BUSINESS DISTRICT

LEGEND

CITY LIMIT

RIV-SAN TRAFFIC ZONE BOUNDARY

STUDY TRAFFIC ZONE BOUNDARY

RIV-SAN TRAFFIC ZONE NUMBER (154)

STUDY TRAFFIC ZONE NUMBER 25

NOT TO SCALE

ZONE NUMBER CORRESPONDENCE

56–305	77–373	96–426	115–460	134–484
57–329	78–376	97–427	116–461	135–485
58–336	79–378	98–428	117–462	136–486
59–337	80–391	99–429	118–463	137–487
60–338	81–392	100–430	119–465	138–488
61–339	82–393	101–431	120–466	139–489
62–340	83–394	102–432	121–467	140–490
63–341	84–395	103–433	122–468	141–492
64–346	85–397	104–435	123–469	142–493
65–347	86–398	105–438	124–470	143–495
66–349	87–399	106–439	125–472	144–497
67–350	88–401	107–440	126–473	145–498
68–353	89–404	108–441	127–477	146–511
69–354	90–407	109–442	128–478	147–512
70–356	91–408	110–443	129–479	148–513
72–358	92–411	111–444	130–480	149–514
74–370	93–412	112–445	131–481	150–515
75–371	94–414	113–450	132–482	
76–372	95–418	114–457	133–483	

MGA

CITY OF COLTON
GENERAL PLAN CIRCULATION ELEMENT UPDATE
TRAFFIC ANALYSIS ZONES

FIGURE

COLTON1

Appendix B: Year 2010 Trip Length Summary

CITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 TRIP LENGTH SUMMARY

WITHOUT PROJECT

AVERAGE TRIP LENGTH (MILES) = 9.356
AVERAGE TRIP LENGTH (MINUTES) = 13.993
TOTAL VEHICLE-MILES TRAVELED (VMT) = 3,968,053
TOTAL VEHICLE-HOURS TRAVELED (VHT) = 98,912

WITH PROJECT

AVERAGE TRIP LENGTH (MILES) = 9.342
AVERAGE TRIP LENGTH (MINUTES) = 13.937
TOTAL VEHICLE-MILES TRAVELED (VMT) = 3,962,207
TOTAL VEHICLE-HOURS TRAVELED (VHT) = 98,513

NOTES: (1) The trip length figures were obtained by using the SCAG RIVSAN transportation model.

(2) The trip length statistics shown above relate to the 222 traffic analysis zones of the Colton study area only, and are not region-wide statistics.

(3) The trip length statistics are for a 24-hour duration.

Appendix C: Traffic Model Validation

1987 Ground Count -
1987 Model Volume
Comparison Table

CITY OF COLTON CIRCULATION ELEMENT UPDATE
1987 VALIDATION MODEL RESULTS
GROUND COUNTS VS. MODEL VOLUMES

LINK	1987 GROUND COUNT	1987 MODEL VOLUME	DIFFERENCE	% DIFFERENCE
PEPPER AVENUE (I10 - SLOVER)	2700	3700	-1000	-37
PEPPER AVENUE (VALLEY - OLIVE)	14900	10800	4100	27
PEPPER AVENUE (OLIVE - RANDALL)	13900	10900	3000	21
SAN BERNARDINO AVENUE (CITY LIMIT - PEPPER)	2500	3200	-700	-28
OLIVE STREET (PEPPER - RANCHO)	2500	2400	100	4
VALLEY BOULEVARD (CITY LIMIT - PEPPER)	9400	9000	400	4
VALLEY BOULEVARD (PEPPER - RANCHO)	8900	15500	-6600	-74
SLOVER AVENUE (CITY LIMIT - PEPPER)	2700	3700	-1000	-37
AGUA MANSA ROAD (CITY LIMIT - RANCHO)	1500	1400	100	6
MILL AVENUE (CITY LIMIT - RANCHO)	9250	7500	1750	18
MILL AVENUE (RANCHO - MT. VERNON)	11650	11300	350	3
RANCHO AVENUE (MILL - OLIVE)	8500	8400	100	1
RANCHO AVENUE (OLIVE - VALLEY)	9850	11900	-2050	-20
PENNSYLVANIA AVENUE (MILL - OLIVE)	4000	2500	1500	37
PENNSYLVANIA AVENUE (OLIVE - VALLEY)	2400	2200	200	8
LAUREL STREET (RANCHO - MT. VERNON)	2000	1000	1000	50
OLIVE STREET (RANCHO - LA CADENA)	3100	3100	0	0
"C" STREET (MERIDIAN - RANCHO)	3300	2000	1300	39
"C" STREET (RANCHO - LA CADENA)	4400	1000	3400	77
"C" STREET (LA CADENA - MT. VERNON)	1600	1200	400	25
"E" STREET (RANCHO - LA CADENA)	1100	1500	-400	-36
"E" STREET (LA CADENA - MT. VERNON)	1300	400	900	69
"H" STREET (RANCHO - LA CADENA)	5100	1900	3200	62
"H" STREET (LA CADENA - MT. VERNON)	3000	2400	600	20
VALLEY BOULEVARD (RANCHO - LA CADENA)	12000	9400	2600	21
VALLEY BOULEVARD (LA CADENA - MT. VERNON)	10500	10400	100	0
LA CADENA AVENUE (MT. VERNON - OLIVE)	7100	9000	-1900	-26
LA CADENA AVENUE (OLIVE - VALLEY)	7100	6600	500	7
MT. VERNON AVENUE (LA CADENA - COLTON)	13000	8500	4500	34
MT. VERNON AVENUE (COLTON - VALLEY)	13000	12900	100	0

CITY OF COLTON CIRCULATION ELEMENT UPDATE
1987 VALIDATION MODEL RESULTS
GROUND COUNTS VS. MODEL VOLUMES

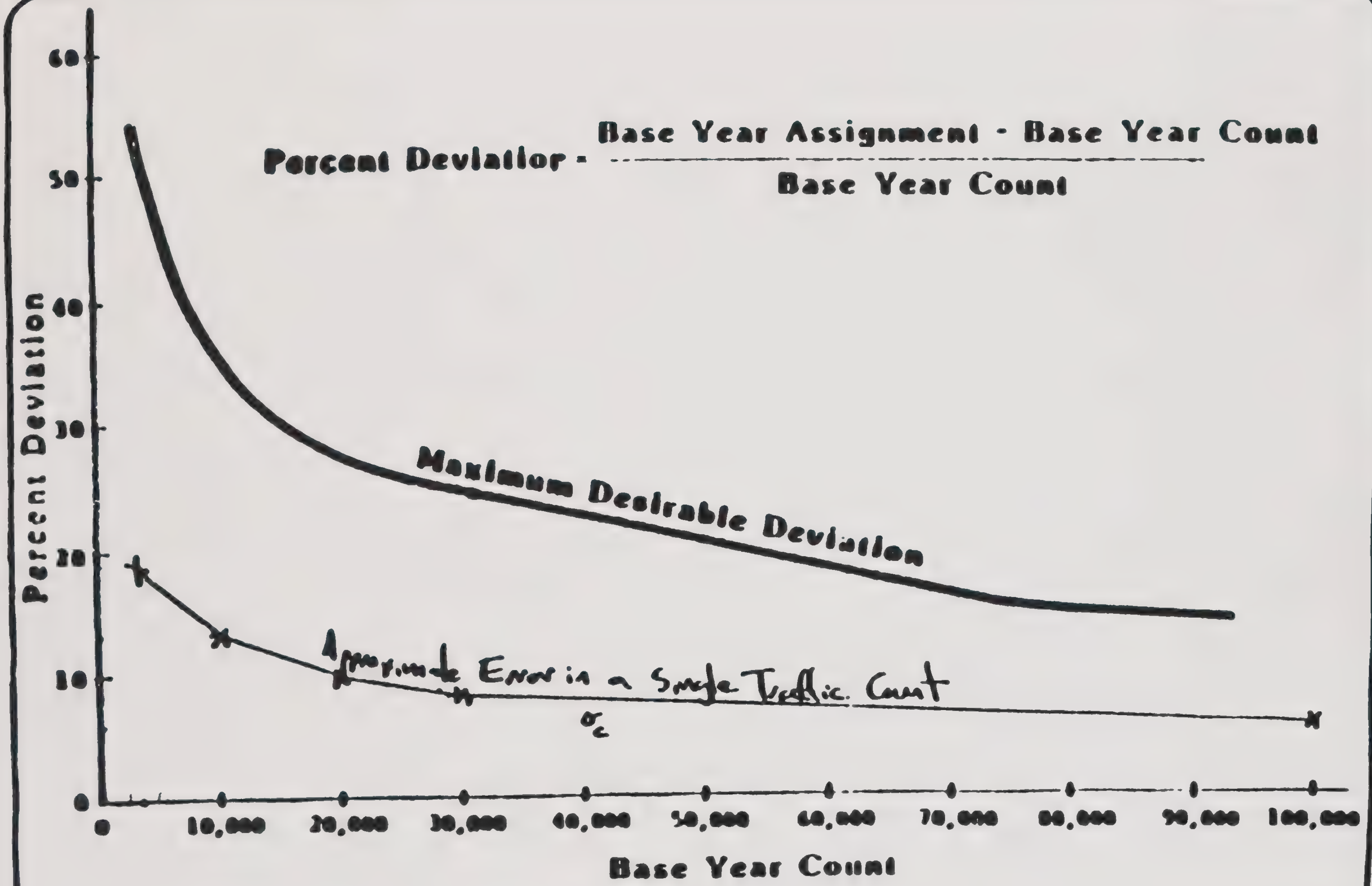
LINK	1987 GROUND COUNT	1987 MODEL VOLUME	DIFFERENCE	% DIFFERENCE
FAIRWAY STREET (MT. VERNON - SPERRY)	3780	4200	-420	-11
FAIRWAY STREET (SPERRY - AUTO PLAZA)	4580	5900	-1320	-28
SPERRY DRIVE (I10 - FAIRWAY)	2660	1700	960	36
RANCHO AVENUE (I10 - LA CADENA)	12000	15300	-3300	-27
LA CADENA AVENUE (I10 - RANCHO)	9200	8800	400	4
"M" STREET (RANCHO - LA CADENA)	1000	1800	-800	-80
"M" STREET (LA CADENA - MT. VERNON)	2400	1800	600	25
LA CADENA AVENUE (RANCHO - BARTON)	14000	15200	-1200	-8
LA CADENA AVENUE (BARTON - I215)	11700	8300	3400	29
MT. VERNON AVENUE (I10 E/B - COOLEY)	14000	14200	-200	-1
MT. VERNON AVENUE (COOLEY - WASHINGTON)	16400	16100	300	1
BARTON ROAD (LA CADENA - I215)	8200	14900	-6700	-81
BARTON ROAD (MT. VERNON - WASHINGTON)	9000	14800	-5800	-64
COOLEY DRIVE (MT. VERNON - I215)	4640	5700	-1060	-22
SANTO ANTONIO DRIVE (WASHINGTON - MT. VERNON)	3700	5400	-1700	-45
SANTO ANTONIO DRIVE (MT. VERNON - CENTREPOINTE)	3700	4100	-400	-10
CENTREPOINTE DRIVE (MT. VERNON - SANTO ANTONIO)	1100	2500	-1400	-127
WASHINGTON STREET (I215 OVERPASS)	25100	40600	-15500	-61
WASHINGTON STREET (I215 - BARTON)	23000	19700	3300	14
BARTON ROAD (WASHINGTON - RECHE CYN)	23100	30600	-7500	-32
BARTON ROAD (RECHE CYN - WATERMAN)	24000	28400	-4400	-18
HUNTS LANE (I10 - COOLEY)	13000	15200	-2200	-16
HUNTS LANE (COOLEY - BARTON)	11000	9600	1400	12
RECHE CANYON ROAD (BARTON - CITY LIMIT)	9300	12900	-3600	-38
INTERSTATE 10 (CITY LIMIT - PEPPER)	120000	130000	-10000	-8
INTERSTATE 10 (PEPPER - RANCHO)	124000	132000	-8000	-6
INTERSTATE 10 (RANCHO - NINTH)	124000	138100	-14100	-11
INTERSTATE 10 (NINTH - MT. VERNON)	127000	140300	-13300	-10
INTERSTATE 10 (MT. VERNON - I215)	124000	136300	-12300	-9
INTERSTATE 10 (I215 - WATERMAN)	140000	141400	-1400	-1

CITY OF COLTON CIRCULATION ELEMENT UPDATE
1987 VALIDATION MODEL RESULTS
GROUND COUNTS VS. MODEL VOLUMES

LINK	1987 GROUND COUNT	1987 MODEL VOLUME	DIFFERENCE	% DIFFERENCE
INTERSTATE 215 (LA CADENA - BARTON)	111000	132300	-21300	-19
INTERSTATE 215 (BARTON - WASHINGTON)	112000	120000	-8000	-7
INTERSTATE 215 (WASHINGTON - I10)	111000	139400	-28400	-25
INTERSTATE 215 (I10 - ORANGE SHOW)	140000	159200	-19200	-13
TOTALS	1675810	1842400	-166590	-9

Validation Error Graph

FIGURE 15



Source: NCHRP 255, page 41 and Guide to Urban Traffic Volume Counting, P.17

Maximum desirable error for link volumes.

Appendix D: Year 2010 Peak Hour and ADT

CITY OF COLTON CIRCULATION ELEMENT UPDATE
FORECASTED PM PEAK HOUR
AND AVERAGE DAILY TRAFFIC VOLUMES

	PM PEAK HOUR VOLUMES		AVERAGE DAILY TRAFFIC VOLUMES	
LINK	WITHOUT PROJECT	WITH PROJECT	WITHOUT PROJECT	WITH PROJECT
PEPPER AVENUE (I10 - SANTA ANA)	2300	2700	23000	27000
PEPPER AVENUE (VALLEY - OLIVE)	2600	3500	26000	35000
PEPPER AVENUE (OLIVE - RANDALL)	2300	2900	23000	29000
MERIDIAN AVENUE (VALLEY - NCL)	700	600	7000	6000
RANDALL AVENUE (CITY LIMIT - PEPPER)	300	500	3000	5000
SAN BERNARDINO AVENUE (CITY LIMIT - PEPPER)	1300	1300	13000	13000
OLIVE STREET (PEPPER - RANCHO)	1100	800	11000	8000
VALLEY BOULEVARD (CITY LIMIT - PEPPER)	2700	2000	27000	20000
VALLEY BOULEVARD (PEPPER - RANCHO)	2500	2500	25000	25000
SLOVER AVENUE (CITY LIMIT - PEPPER)	1200	1200	12000	12000
AGUA MANSA ROAD (CITY LIMIT - RANCHO)	1500	800	15000	8000
MILL AVENUE (CITY LIMIT - RANCHO)	1300	2200	13000	22000
MILL AVENUE (RANCHO - MT. VERNON)	1700	2300	17000	23000
CITRUS STREET (PEPPER - PENNSYLVANIA)	300	500	3000	5000
RANCHO AVENUE (MILL - OLIVE)	2400	2700	24000	27000
RANCHO AVENUE (OLIVE - VALLEY)	2900	3200	29000	32000
PENNSYLVANIA AVENUE (MILL - OLIVE)	700	700	7000	7000
PENNSYLVANIA AVENUE (OLIVE - VALLEY)	700	700	7000	7000
LAUREL STREET (RANCHO - MT. VERNON)	300	300	3000	3000
OLIVE STREET (RANCHO - LA CADENA)	500	400	5000	4000
"C" STREET (MERIDIAN - RANCHO)	700	700	7000	7000
"C" STREET (RANCHO - LA CADENA)	800	800	8000	8000
"C" STREET (LA CADENA - MT. VERNON)	400	300	4000	3000
"E" STREET (RANCHO - LA CADENA)	500	600	5000	6000
"E" STREET (LA CADENA - MT. VERNON)	100	200	1000	2000
"H" STREET (RANCHO - LA CADENA)	700	700	7000	7000
"H" STREET (LA CADENA - MT. VERNON)	700	700	7000	7000
VALLEY BOULEVARD (RANCHO - LA CADENA)	2000	2200	20000	22000

NOTE: The pm peak hour only for the peak hour volumes is shown since the pm peak hour is heavier than the am peak hour.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
FORECASTED PM PEAK HOUR
AND AVERAGE DAILY TRAFFIC VOLUMES

LINK	PM PEAK HOUR VOLUMES WITHOUT PROJECT	PM PEAK HOUR VOLUMES WITH PROJECT	AVERAGE DAILY TRAFFIC VOLUMES WITHOUT PROJECT	AVERAGE DAILY TRAFFIC VOLUMES WITH PROJECT
VALLEY BOULEVARD (LA CADENA - MT. VERNON)	2000	2100	20000	21000
LA CADENA AVENUE (MT. VERNON - OLIVE)	1300	1700	13000	17000
LA CADENA AVENUE (OLIVE - VALLEY)	1300	2100	13000	21000
COLTON AVENUE (10TH - MT. VERNON)	600	600	6000	6000
COLTON AVENUE (MT. VERNON - NCL)	1100	700	11000	7000
MT. VERNON AVENUE (LA CADENA - COLTON)	1800	1700	18000	17000
MT. VERNON AVENUE (COLTON - VALLEY)	2300	2300	23000	23000
FAIRWAY STREET (MT. VERNON - SPERRY)	1000	1000	10000	10000
FAIRWAY STREET (SPERRY - AUTO PLAZA)	1500	1600	15000	16000
SPERRY DRIVE (I10 - FAIRWAY)	800	900	8000	9000
RANCHO AVENUE (I10 - LA CADENA)	2400	3200	24000	32000
LA CADENA AVENUE (I10 - RANCHO)	1800	2100	18000	21000
"M" STREET (RANCHO - LA CADENA)	200	100	2000	1000
"M" STREET (LA CADENA - MT. VERNON)	400	300	4000	3000
FOGG STREET (LA CADENA - "M")	N/A	N/A	N/A	2000
LA CADENA AVENUE (RANCHO - BARTON)	2600	3800	26000	38000
LA CADENA AVENUE (BARTON - I215)	2100	2700	21000	27000
MT. VERNON AVENUE (I10 E/B - COOLEY)	2300	3400	23000	34000
MT. VERNON AVENUE (COOLEY - WASHINGTON)	2200	2800	22000	28000
BARTON ROAD (WASHINGTON - LA CADENA)	N/A	N/A	N/A	5000
BARTON ROAD (LA CADENA - I215)	1400	1400	14000	14000
BARTON ROAD (SCL - WASHINGTON)	1700	2200	17000	22000
COOLEY DRIVE (MT. VERNON - WASHINGTON)	700	700	7000	7000
SANTO ANTONIO DRIVE (WASHINGTON - MT. VERNON)	600	800	6000	8000
SANTO ANTONIO DRIVE (MT. VERNON - CENTREPOINTE)	300	500	3000	5000
CENTREPOINTE DRIVE (MT. VERNON - SANTO ANTONIO)	200	200	2000	2000
RIVERSIDE AVENUE (NCL - SCL)	3600	3400	36000	34000
WASHINGTON STREET (RIVERSIDE - BARTON)	N/A	N/A	N/A	14000
WASHINGTON STREET (BARTON - LA CADENA)	N/A	N/A	N/A	9000

NOTE: The pm peak hour only for the peak hour volumes is shown since the pm peak hour is heavier than the am peak hour.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
FORECASTED PM PEAK HOUR
AND AVERAGE DAILY TRAFFIC VOLUMES

	PM PEAK HOUR VOLUMES		AVERAGE DAILY TRAFFIC VOLUMES	
LINK	WITHOUT PROJECT	WITH PROJECT	WITHOUT PROJECT	WITH PROJECT
WASHINGTON STREET (LA CADENA - MT. VERNON)	N/A	N/A	N/A	23000
WASHINGTON STREET (I215 OVERPASS)	4100	4400	41000	44000
WASHINGTON STREET (I215 - BARTON)	3700	4500	37000	45000
WASHINGTON STREET (WASHINGTON - RECHE CYN)	3900	5300	39000	53000
WASHINGTON STREET (RECHE CYN - WATERMAN)	3500	4500	35000	45000
HUNTS LANE (I10 - COOLEY)	2500	2600	25000	26000
HUNTS LANE (COOLEY - BARTON)	1500	2400	15000	24000
RECHE CANYON ROAD (BARTON - CITY LIMIT)	2600	3300	26000	33000
INTERSTATE 10 (CITY LIMIT - PEPPER)	15300	15000	153000	150000
INTERSTATE 10 (PEPPER - RANCHO)	15700	15400	157000	154000
INTERSTATE 10 (RANCHO - NINTH)	15600	15200	156000	152000
INTERSTATE 10 (NINTH - MT. VERNON)	17300	16800	173000	168000
INTERSTATE 10 (MT. VERNON - I215)	17700	17100	177000	171000
INTERSTATE 10 (I215 - WATERMAN)	25200	24700	252000	247000
INTERSTATE 215 (LA CADENA - BARTON)	17400	16900	174000	169000
INTERSTATE 215 (BARTON - WASHINGTON)	18600	17300	186000	173000
INTERSTATE 215 (WASHINGTON - I10)	16500	15800	165000	158000
INTERSTATE 215 (I10 - ORANGE SHOW)	18400	17800	184000	178000

NOTE: The pm peak hour only for the peak hour volumes is shown since the pm peak hour is heavier than the am peak hour.

Appendix E: Year 2010 Intersecton LOS and ICU Values

CITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 INTERSECTION LEVELS OF SERVICE

	WITHOUT PROJECT				WITH PROJECT			
	AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		PM PEAK HOUR	
INTERSECTION	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU
PEPPER AVENUE @ RANDALL AVENUE	B	.69	A	.61	A	.48	B	.56
PEPPER AVENUE @ SAN BERNARDINO STREET/ OLIVE STREET	C	.8	F	1.24	C	.65	C	.65
WILDROSE AVENUE @ VALLEY BOULEVARD	B	.24	B	.33	B	.27	B	.52
PEPPER AVENUE @ VALLEY BOULEVARD	F	1.7	F	1.3	D+	.92	E+	.97
PEPPER AVENUE @ I-10 W/B	D+	1.02	F	1.21	C	.83	C	.86
PEPPER AVENUE @ I-10 E/B	F	1.16	D+	1.01	B	.47	C	.85
RANCHO AVENUE @ MILL AVENUE	B	.42	B	.55	C	.58	D	.89
RANCHO AVENUE @ JOHNSTON STREET	B	.36	B	.44	B	.31	B	.41
RANCHO AVENUE @ CITRUS STREET	B	.4	B	.49	B	.39	B	.45
RANCHO AVENUE @ LAUREL STREET	B	.46	A	.51	B	.4	A	.46
RANCHO AVENUE @ OLIVE STREET	B	.6	B	.68	B	.54	B	.63
RANCHO AVENUE @ "C" STREET	B	.51	B	.58	B	.49	B	.64
RANCHO AVENUE @ "E" STREET	A	.5	A	.57	A	.47	A	.57
RANCHO AVENUE @ VALLEY BOULEVARD	B	.75	F	1.12	C	.79	E+	.98
RANCHO AVENUE @ I-10 W/B	C	.93	F	1.19	C	.78	C	.79
RANCHO AVENUE @ I-10 E/B	C	.85	F	1.18	C	.69	D+	.91
PENNSYLVANIA AVENUE @ MILL STREET	B	.61	C	.75	B	.46	C	.67
PENNSYLVANIA AVENUE @ JOHNSTON STREET	B	.28	B	.28	B	.28	B	.3
PENNSYLVANIA AVENUE @ CITRUS STREET	B	.23	B	.29	B	.25	B	.3

NOTE: The levels of service correspond to delay methodology per the 1985 Highway Capacity Manual.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 INTERSECTION LEVELS OF SERVICE

INTERSECTION	WITHOUT PROJECT				WITH PROJECT			
	AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		PM PEAK HOUR	
	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU
PENNSYLVANIA AVENUE @ LAUREL STREET	B	.32	B	.36	B	.32	B	.35
PENNSYLVANIA AVENUE @ OLIVE STREET	B	.38	B	.44	B	.36	B	.44
PENNSYLVANIA AVENUE @ "C" STREET	B	.42	B	.52	B	.39	B	.44
PENNSYLVANIA AVENUE @ "E" STREET	B	.48	B	.54	B	.44	B	.57
PENNSYLVANIA AVENUE @ "H" STREET	B	.29	B	.44	B	.27	B	.48
PENNSYLVANIA AVENUE @ VALLEY BOULEVARD	C	.43	B	.39	C	.5	C	.53
LA CADENA DRIVE @ LAUREL STREET	B	.18	B	.24	B	.22	B	.27
LA CADENA DRIVE @ OLIVE STREET	B	.33	B	.4	B	.31	B	.36
LA CADENA DRIVE @ "C" STREET	B	.5	B	.56	B	.46	B	.52
LA CADENA DRIVE @ "E" STREET	A	.27	A	.38	A	.26	A	.36
LA CADENA DRIVE @ "G" STREET	A	.25	A	.43	A	.24	A	.35
LA CADENA DRIVE @ "H" STREET	B	.27	B	.61	B	.37	B	.65
LA CADENA DRIVE @ VALLEY BOULEVARD	C	.71	C	.85	C	.74	D	.91
LA CADENA DRIVE @ I-10 W/B	A	.29	A	.52	B	.46	B	.5
LA CADENA DRIVE @ "M" STREET	A	.38	B	.52	A	.36	A	.46
LA CADENA DRIVE @ "N" STREET	B	.4	B	.56	B	.34	B	.53
LA CADENA DRIVE @ 7TH STREET	B	.71	B	.65	A	.4	B	.46
LA CADENA DRIVE @ FOGG STREET	B	.45	B	.57	B	.39	B	.55
RANCHO AVENUE @ FOGG STREET	A	.28	A	.25	B	.38	B	.48
LA CADENA DRIVE @ RANCHO AVENUE	F	1.21	F	1.65	C	.75	C	.86

NOTE: The levels of service correspond to delay methodology per the 1985 Highway Capacity Manual.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 INTERSECTION LEVELS OF SERVICE

	WITHOUT PROJECT				WITH PROJECT			
	AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		PM PEAK HOUR	
INTERSECTION	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU
LA CADENA DRIVE @ WASHINGTON STREET	N/A	N/A	N/A	N/A	B	.62	C	.85
LA CADENA DRIVE @ BARTON ROAD	E	1.16	B	.71	D+	.83	D+	.9
LA CADENA DRIVE @ I-215 S/B OFF RAMP	C	.88	D-	1.02	B	.63	C	.84
LA CADENA DRIVE @ I-215 N/B	B	.73	D+	.99	B	.52	B	.71
9TH STREET @ "H" STREET	B	.29	B	.68	B	.21	B	.53
9TH STREET @ VALLEY BOULEVARD	C	.57	C	.84	C	.59	D+	.9
9TH STREET @ I-10 W/B OFF RAMP	B	.38	C	.92	B	.28	B	.76
9TH STREET @ I-10 E/B	B	.34	C	.81	B	.38	B	.73
MT. VERNON AVENUE @ LA CADENA DRIVE / GRANT AVENUE CITRUS STREET	D+	.77	F	1.07	C	.69	D+	.82
MT. VERNON AVENUE @ LAUREL STREET	A	.22	A	.3	A	.2	A	.3
MT. VERNON AVENUE @ OLIVE STREET	A	.28	A	.38	A	.26	A	.38
MT. VERNON AVENUE @ COLTON AVENUE	B	.49	B	.49	B	.45	B	.51
COLTON AVENUE @ "C" STREET	B	.22	B	.31	B	.2	B	.28
COLTON AVENUE @ "E" STREET	B	.12	B	.22	B	.09	B	.18
COLTON AVENUE @ "F" STREET	B	.12	B	.26	B	.12	B	.26
10TH STREET @ "H" STREET	B	.11	B	.28	B	.12	B	.23
10TH STREET @ VALLEY BOULEVARD	B	.3	B	.5	C	.46	C	.64
MT. VERNON AVENUE @ "E" STREET	A	.35	A	.42	A	.33	A	.45
MT. VERNON AVENUE @ "F" STREET/FAIRWAY DRIVE	C	.58	C	.71	C	.52	C	.83

NOTE: The levels of service correspond to delay methodology per the 1985 Highway Capacity Manual.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 INTERSECTION LEVELS OF SERVICE

	WITHOUT PROJECT				WITH PROJECT			
	AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		PM PEAK HOUR	
INTERSECTION	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU
MT. VERNON AVENUE @ "H" STREET	A	.35	B	.48	A	.31	A	.49
MT. VERNON AVENUE @ VALLEY BOULEVARD / I-10 W/B ON RAMP	C	.59	C	.72	C	.63	D+	.86
SPERRY DRIVE @ FAIRWAY DRIVE	C	.41	C	.57	C	.58	D+	.84
MT. VERNON AVENUE @ I-10 E/B	B	.62	C	.9	C	.51	C	.88
FOGG STREET @ "M" STREET	N/A	N/A	N/A	N/A	B	.06	B	.15
MT. VERNON AVENUE @ "M" STREET	B	.68	B	.83	B	.46	B	.68
MT. VERNON AVENUE @ COOLEY DRIVE	C	.44	C	.44	C	.43	C	.55
MT. VERNON AVENUE @ SANTO ANTONIO DRIVE	B	.31	B	.41	B	.35	B	.58
MT. VERNON AVENUE @ CENTREPOINTE DRIVE	A	.25	A	.29	A	.28	B	.36
MT. VERNON AVENUE @ WASHINGTON STREET (W/O I-215)	C	.89	F	1.29	C	.69	C	.84
MT. VERNON AVENUE @ I-215 N/B OFF RAMP	B	.75	C	.82	C	.73	C	.77
MT. VERNON AVENUE @ WASHINGTON STREET (E/O I-215)	C	.84	C	.92	B	.72	C	.86
WASHINGTON STREET @ BLUFF ROAD	B	.41	B	.72	B	.46	B	.81
WASHINGTON STREET @ MEADOW LANE	B	.71	B	.81	B	.59	B	.73
WASHINGTON STREET @ BARTON ROAD/COOLEY DRIVE	C	.76	F	1.13	B	.49	C	.87
WASHINGTON STREET @ MOHAVE DRIVE	B	.53	B	.67	B	.53	B	.65
WASHINGTON STREET @ RECHE CANYON ROAD/HUNTS LANE	B	.69	C	.97	C	.74	E+	1.01
REDLANDS BOULEVARD/STEEL ROAD @ HUNTS LANE	E	1.02	F	1.31	D	.95	D	.94
COOLEY DRIVE @ HUNTS LANE	B	.6	B	.79	B	.52	C	.83

NOTE: The levels of service correspond to delay methodology per the 1985 Highway Capacity Manual.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
YEAR 2010 INTERSECTION LEVELS OF SERVICE

	WITHOUT PROJECT				WITH PROJECT			
	AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		PM PEAK HOUR	
INTERSECTION	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU
WASHINGTON STREET @ HUNTS LANE	N/A	N/A	N/A	N/A	B	.7	B	.8
WASHINGTON STREET @ WEIR ROAD	A	.51	C	.89	A	.37	B	.67
WASHINGTON STREET @ WATERMAN AVENUE	F	1.21	F	1.15	C	.75	C	.72
WASHINGTON STREET @ I-215 N/B ON RAMP	B	.28	B	.28	A	.48	B	.56
OLIVE STREET @ MERIDIAN AVENUE	B	.44	B	.59	B	.39	B	.56
VALLEY BOULEVARD @ MERIDIAN AVENUE	B	.58	B	.69	A	.46	A	.59
AGUA MANSA ROAD @ RANCHO AVENUE	B	.45	C	.83	N/A	N/A	N/A	N/A
SLOVER AVENUE @ PEPPER AVENUE	C	.77	E	1.01	C	.73	C	.85
AGUA MANSA ROAD @ RIVERSIDE AVENUE	B	.82	F	1.13	B	.72	C	.91
BARTON ROAD @ WASHINGTON STREET	N/A	N/A	N/A	N/A	B	.19	B	.38
WASHINGTON STREET @ RIVERSIDE AVENUE	N/A	N/A	N/A	N/A	B	.76	D+	.98

NOTE: The levels of service correspond to delay methodology per the 1985 Highway Capacity Manual.

Appendix F: Year 2010 MONITOR LOS Output

MONITOR Description and Delay Methodology

MONITOR

MONITOR is a computer program package developed by MGA to analyze traffic at intersections using the delay methodology per the 1985 Highway Capacity Manual (HCM). The MONITOR criteria of analysis and evaluation are level of service (LOS) and degree of saturation. The LOS is based on vehicle delay and the degree of saturation is represented by "X" and is equivalent to intersection capacity utilization (ICU). The most important aspect of this program is its ability to consider all aspects of signal design, including progression timing.

The general traffic impact analysis, using the MONITOR program, is carried out as follows:

1) Define land use of project and related projects.

2) Choose recommended trip generation rates for the project and related projects.

3) Collect a.m. and p.m. peak hour turning movement counts at all the study intersections.

4) Create a node link map for representing turning movement counts, trip distribution (project and related projects) and trip assignment values.

5) Establish saturation flows for existing/proposed intersection geometrics and establish existing/proposed signal phasing for the study intersections.

6) The other data that are required include approach speed, growth factor and distances between intersections.

MONITOR INPUT

The above collected data are input via various menus that are available in the MONITOR program. The basic data entered are:

- Turning movement counts
- Land use data
- Trip generation rates
- Number of phases
- Saturation flows
- Distances between intersections
- Growth factor and speed
- Route path data (trip distribution data)

All data is conveniently stored in a data base for easy editing and iterative processing.

MONITOR OUTPUT

The MONITOR output consists of the following:

1) Level of Service of each intersection and all approaches.
2) Degree of Saturation (ICU value).
3) Queue length (vehicles) for each lane.
4) Phase Timing (cycle and split).
5) Progression Timing (offsets).
6) Project Trip Summaries.
7) Tracking of zonal traffic to each intersection.

A sample MONITOR OUTPUT is given in table format. The output provides LOS based on both delay and ICU definitions.

The following briefly describes each column of the MONITOR OUTPUT

Column	Brief Description
1.	Approach direction, depends on the intersection, type and the input data under "General Network Data" menu.
2.	Link number in the LOSSYS notation as explained under section 5.2 in Chapter 5.
3.	Saturation flow (VPH) - the values entered under "General Network Data" for the study of intersections.
4.	Approach speed (MPH) corresponds to the value entered under "General Network Data" for the study of intersections.
5.	Volume (V) is calculated, as per the selection explained in section 6.3.3 in this chapter.
6.	Capacity (VPH) is calculated using the HCM equation for each approach: $$\text{Capacity} = S(g/c)$$
7.	Volume/capacity (X) is called the Degree of Saturation. It is represented in the form: $X = (q*C)/(g*S)$ Where: x = Degree of Saturation q = Flow (VPH) s = Saturation flow (VPH) g = Green time (Sec) C = Cycle time (Sec) Logically, if this value is greater than unity, there are more vehicles trying to pass through the intersection than available capacity. This relative saturation or degree of saturation is known as ICU (Intersection Capacity Utilization).

8. Progression adjustment factor (PAF) is the factor as per the 1985 HCM describing the quality of progression for a particular movement. It is automatically determined as MONITOR optimizes signal timing.

9. Average stop time delays is given in sec/veh for each approach, based on the 1985 HCM delay equation.

10. This LOS is corresponding to the stop delay value in column 9 as per the delay definition in 1985 HCM.

11. Queue (vehicles/lane) length is the theoretical average queue in each respective phase at the beginning of the green period for that phase.

12. Movement Time and Phase Length are given in seconds and equals the effective green time plus the lost time of 2 seconds. It includes the yellow time and all red time.

13. Effective Green Time is given in seconds the actual phase time available for vehicles, it excludes loss time of 2 seconds for that particular movement.

14. Offset given in seconds is related to progression. Details of PAF and offset are given in later chapters.

15. Phasing Sequence identifies phases during which a particular movement is permitted to move.

16. The same as Column 1.

17. The same as Column 2.

The bottom two rows of the output are related to the total flow, weighted average delay for all the movement, and for critical movements including LOS. Also, the ICU LOS is given for the critical movements.

DELAY METHODOLOGY FOR CAPACITY ANALYSIS AND LOS

The basic delay methodology for capacity analysis is to collect field data on the actual traffic flow characteristics and then analyze that data to determine the Level of Service. This procedure is in accordance with the new 1985 Highway Capacity Manual (HCM)[1] and considers a variety of prevailing conditions including the amount and distribution of traffic movements, traffic composition, maximum possible flow rate (saturation flow), geometrics and the intersection signal timing.

Level of service for signalized intersections is defined in terms of delay. According to the HCM, "Delay is a measure of driver discomfort, frustration, fuel consumption and lost travel time." The delay is stated as the average stopped delay per vehicle for a

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(1) "Chapter 9, Signalized Intersections," Highway Capacity Manual, Special Report 209, Transportation Research Board, National Research Council, Washington D.C., 1985.

peak one hour analysis period. The seconds of delay are related to a letter grade for ease of communication. The level of service methodology incorporates a modification of the delay formula originally developed by F. V. Webster and the critical lane method of Interim Materials on Highway Capacity (Transportation Research Circular No. 212). The relationship between delay and the level of service is as follows:

Level of Service	Veh. Delay (Seconds)
A (minimal delay	- 5.0
B (short delay)	5.1 - 15.0
C (average delay)	15.1 - 25.0
D (long delay)	25.1 - 40.0
E (very long delay)	40.1 - 60.0
F (extreme delay or jammed)	60.1 -

These levels of service are defined in the 1985 HCM as follows:

- Level of Service "A" - describes operations with very low delay, i.e., 5.0 seconds or less per vehicle. This occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

- Level of Service "B" - describes operations with delay in the range of 5.1 to 15.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for Level of Service "A", causing higher levels of average delay.

- Level of Service" C" - describes operations with delay in the range of 15.1 to 25.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.

- Level of Service "D" - describes operations with delay in the range of 25.1 to 40.0 seconds per vehicle. At Level "D", the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths or high volume to capacity (v/c) ratios. Many vehicles stop and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

- Level of Service "E" - describes operations with delay in the range of 40.1 to 60.0 seconds per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths and high v/c ratios. Individual cycle failures are frequent occurrences.

- Level of Service "F" - describes operations with delay in excess of 60.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Generally, Level of Service "D" is considered acceptable for limited duration peak periods in urban areas. Level of Service "E" is common during peak commute hours, especially at intersections at or near freeway ramps.

The equation for calculating delay is very complex and is fully explained in the HCM. Due to the complexity, it will not be further discussed in this report; however, the most important variable in the equation will be briefly discussed. That variable is relative saturation ("X") defined by the following simple equation:

$$X = (q * C)/(g * S)$$

where,

X = Relative Saturation
q = Traffic Flow (vph)
C = Cycle Length (sec)
g = Effective Green (sec)
S = Saturation Flow (vph)

Essentially, this equation defines the volume/capacity ratio adjusted for the amount of green time a given movement receives. The key to this relationship is that when "X" becomes larger than approximately 0.85, vehicle delay begins to increase "exponentially" (i.e. very rapidly). For reference purposes, Relative Saturation ("X") is equivalent to Intersection Capacity Utilization (ICU).

SUMMARY

The MONITOR program creates all the required data files automatically once the user has specified all the necessary parameters. The program eliminates the tedious task of arranging the data as per the requirements of TRANSYT 7F format. The program creates a file called LOSSYS (Level of Service for systems of Signals) which is fully compatible with TRANSYT 7F. The main difference between TRANSYT 7F and LOSSYS is that LOSSYS determines the LOS as per the 1985 HCM methodology based on delay criteria. Also, it is to be noted that MONITOR gives Intersection Capacity Utilization values (ICU). The LOS in MONITOR is determined by "Stop Time Delay", rather than "Approach Delay", which is calculated by TRANSYT 7F.

An advantage of using MONITOR is that LOS is determined by both delay and ICU definitions. The MONITOR program is capable of calculating the optimal cycle length that is required for a system of intersections based on distance, speed, and volumes.

Without Project - A.M. Peak Hour

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 1 - RANDALL AVENUE @ PEPPER AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
* EBL	111	1700	35	28	41	69	1.0	30.1	D	5	19	17	0	1-----	111	EBL *
EBR	112	-	-	192	280	69	1.0	30.1	D	-	19	17	0	1-----	112	EBR
* SBT	120	1800	35	959	1380	69	1.0	5.1	B	12	71	69	19	-2----	120	SBT *
SBR	122	1800	35	10	1380	1	1.0	1.9	A	0	71	69	19	-2----	122	SBR
NBT	140	1800	35	581	1380	42	1.0	2.9	A	5	71	69	19	-2----	140	NBT
NBL	141	1400	35	21	1073	2	1.0	1.9	A	0	71	69	19	-2----	141	NBL

INTERSECTION SUMMARY :   TOTAL FLOW = 1791   WEIGHTED AVERAGE DELAY = 7.4   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .69/B   WEIGHTED AVERAGE DELAY = 9.8   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 2 - SAN BERNADINO A @ PEPPER AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
* EBT	210	1800	35	446	553	81	1.0	24.8	C	12	35	33	0	1-----	210	EBT *
EBL	211	-	-	86	107	81	1.0	24.8	C	-	35	33	0	1-----	211	EBL
EBR	212	1800	35	159	660	24	1.0	15.1	C	3	35	33	0	1-----	212	EBR
* SBT	220	3600	35	1125	1394	81	1.0	20.3	C	13	39	37	51	--3---	220	SBT *
* SBL	221	1700	35	210	264	79	1.0	38.6	D-	5	16	14	35	-2----	221	SBL *
SBR	222	-	-	69	86	81	1.0	20.3	C	-	39	37	51	--3---	222	SBR
WBT	230	1800	35	223	345	65	1.0	19.7	C	9	35	33	0	1-----	230	WBT
WBL	231	-	-	142	219	65	1.0	19.7	C	-	35	33	0	1-----	231	WBL
WBR	232	-	-	62	96	65	1.0	19.7	C	-	35	33	0	1-----	232	WBR
NBT	240	1800	35	513	718	71	1.0	19.2	C	11	39	37	51	--3---	240	NBT
NBL	241	1700	35	47	264	18	1.0	25.1	D+	1	16	14	35	-2----	241	NBL
NBR	242	-	-	16	22	71	1.0	19.2	C	-	39	37	51	--3---	242	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 3098   WEIGHTED AVERAGE DELAY = 21.9   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .80/D   WEIGHTED AVERAGE DELAY = 23.5   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 3 - VALLEY BLVD @ WILDROSE AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
* EBT	310	3600	35	640	2600	25	1.0	3.2	A	2	67	65	0	12----	310	EBT *
EBL	311	3200	35	23	107	22	1.0	32.4	D	0	5	3	0	1-----	311	EBL
* SBL	321	3200	35	179	747	24	1.0	21.4	C	2	23	21	67	--3---	321	SBL *
SBR	322	1800	35	99	420	24	1.0	21.4	C	2	23	21	67	--3---	322	SBR
WBT	330	3600	35	428	2400	18	1.0	4.3	A	2	62	60	5	-2----	330	WBT
WBR	332	1800	35	38	1200	3	1.0	3.9	A	0	62	60	5	-2----	332	WBR

INTERSECTION SUMMARY : TOTAL FLOW = 1407   WEIGHTED AVERAGE DELAY = 7.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .24/A   WEIGHTED AVERAGE DELAY = 7.2   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 4 - VALLEY BLVD @ PEPPER AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
EBT.	410	3600	35	407	940	43	1.0	11.5	B	6	46	44	0	1-----	410	EBT
EBL	411	1300	35	90	636	14	1.0	9.6	B	1	46	44	0	1-----	411	EBL
EBR	412	-	-	355	820	43	1.0	11.5	B	-	46	44	0	1-----	412	EBR
* SBT	420	3600	35	1183	692	171**	1.0	772.3	F	32	21	19	46	-2----	420	SBT *
SBL	421	-	-	116	68	171**	1.0	772.3	F	-	21	19	46	-2----	421	SBL
SBR	422	1800	35	135	380	36	1.0	23.3	C	3	21	19	46	-2----	422	SBR
WBT	430	3600	35	309	1391	22	1.0	10.1	B	3	46	44	0	1-----	430	WBT
* WBL	431	700	35	576	342	168**	1.0	757.0	F	22	46	44	0	1-----	431	WBL *
WBR	432	-	-	82	369	22	1.0	10.1	B	-	46	44	0	1-----	432	WBR
* NBT	440	1800	35	720	420	171**	1.0	792.0	F	36	23	21	67	--3---	440	NBT *
NBL	441	1700	35	101	397	25	1.0	21.5	C	2	23	21	67	--3---	441	NBL
NBR	442	1800	35	179	420	43	1.0	22.8	C	4	23	21	67	--3---	442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4253   WEIGHTED AVERAGE DELAY = 477.9   DELAY LOS = F   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.70/F   WEIGHTED AVERAGE DELAY = 774.4   DELAY LOS = F   SYSTEM (BG) OFFSET = 86

<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 5 - I-10 W/B @ PEPPER AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* SBT	520	1800	35	1445	1420	102**	1.0	31.9	D	72	73	71	17	-2----	520	SBT *
SBR	522	1800	35	616	1420	43	1.0	2.5	A	5	73	71	17	-2----	522	SBR
WBL	531	1700	35	220	283	78	1.0	36.3	D-	5	17	15	0	1-----	531	WBL
* WBR	532	1800	35	314	300	105**	1.0	85.2	F	14	17	15	0	1-----	532	WBR *
NBT	540	1800	35	707	1385	51	1.0	2.8	A	6	73	71	17	-2----	540	NBT
NBL	541	-	-	18	35	51	1.0	2.8	A	-	73	71	17	-2----	541	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 3320 WEIGHTED AVERAGE DELAY = 25.4 DELAY LOS = D+ CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.02/F WEIGHTED AVERAGE DELAY = 41.4 DELAY LOS = E+ SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

INTERSECTION # 6 - I-10 E/B @ PEPPER AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	611	2339	35	262	234	112**	1.0	125.4	F	6	11	9	0	1-----	611	EBL *
EBR	612	1161	35	130	116	112**	1.0	149.1	F	6	11	9	0	1-----	612	EBR
* SBT	620	1800	35	1248	1069	117**	1.0	-135.5	A	90	79	77	11	-2----	620	SBT *
SBL	621	-	-	550	471	117**	1.0	-135.5	A	-	79	77	11	-2----	621	SBL
NBT	640	1800	35	453	1540	29	1.0	1.0	A	2	79	77	11	-2----	640	NBT
NBR	642	1800	35	40	1540	3	1.0	.7	A	0	79	77	11	-2----	642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2683 WEIGHTED AVERAGE DELAY = -71.2 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.16/F WEIGHTED AVERAGE DELAY = -102.3 DELAY LOS = A SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 7 - MILL STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	710	1800	35	373	900	41	1.0	11.0	B	6	47	45	0	1-----	710	EBT *
EBL	711	1300	35	70	650	11	1.0	9.1	B	1	47	45	0	1-----	711	EBL
EBR	712	1800	35	89	900	10	1.0	9.0	B	1	47	45	0	1-----	712	EBR
* SBT	720	3600	35	547	1296	42	1.0	12.7	B	6	43	41	47	-2----	720	SBT *
SBL	721	1200	35	122	547	22	1.0	11.4	B	2	43	41	47	-2----	721	SBL
SBR	722	-	-	145	344	42	1.0	12.7	B	-	43	41	47	-2----	722	SBR
WBT	730	3600	35	139	650	21	1.0	9.6	B	2	47	45	0	1-----	730	WBT
WBL	731	-	-	103	482	21	1.0	9.6	B	-	47	45	0	1-----	731	WBL
WBR	732	-	-	143	669	21	1.0	9.6	B	-	47	45	0	1-----	732	WBR
NBT	740	3600	35	485	1279	38	1.0	12.4	B	5	43	41	47	-2----	740	NBT
NBL	741	1300	35	91	592	15	1.0	10.9	B	1	43	41	47	-2----	741	NBL
NBR	742	-	-	137	361	38	1.0	12.4	B	-	43	41	47	-2----	742	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 2444   WEIGHTED AVERAGE DELAY = 11.5   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .42/A   WEIGHTED AVERAGE DELAY = 12.1   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 8 - JOHNSTON STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	810	1800	35	26	71	37	1.0	21.7	C	3	24	22	0	1-----	810	EBT *
EBL	811	-	-	117	320	37	1.0	21.7	C	-	24	22	0	1-----	811	EBL
EBR	812	-	-	18	49	37	1.0	21.7	C	-	24	22	0	1-----	812	EBR
* SBT	820	3600	35	827	2299	36	1.0	3.9	A	4	66	64	24	-2----	820	SBT *
SBL	821	-	-	52	145	36	1.0	3.9	A	-	66	64	24	-2----	821	SBL
SBR	822	-	-	42	117	36	1.0	3.9	A	-	66	64	24	-2----	822	SBR
WBT	830	1800	35	12	34	36	1.0	21.7	C	3	24	22	0	1-----	830	WBT
WBL	831	-	-	70	196	36	1.0	21.7	C	-	24	22	0	1-----	831	WBL
WBR	832	-	-	75	210	36	1.0	21.7	C	-	24	22	0	1-----	832	WBR
NBT	840	3600	35	485	2198	22	1.0	3.4	A	2	66	64	24	-2----	840	NBT
NBL	841	-	-	15	68	22	1.0	3.4	A	-	66	64	24	-2----	841	NBL
NBR	842	-	-	65	295	22	1.0	3.4	A	-	66	64	24	-2----	842	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 1804   WEIGHTED AVERAGE DELAY = 6.9   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .36/A   WEIGHTED AVERAGE DELAY = 6.5   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
AS PART OF
THE TRAFFIC GROWTH MONITORING PROGRAM
MONITOR

INTERSECTION # 9 - CITRUS STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	910	1800	35	16	163	10	1.0	16.8	C	1	30	28	0	1-----	910	EBT
EBL	911	-	-	39	397	10	1.0	16.8	C	-	30	28	0	1-----	911	EBL
* EBR	912	1800	35	227	560	41	1.0	18.9	C	4	30	28	0	1-----	912	EBR *
* SBT	920	3600	35	881	2224	40	1.0	5.9	B	5	60	58	30	-2----	920	SBT *
SBL	921	-	-	22	56	40	1.0	5.9	B	-	60	58	30	-2----	921	SBL
SBR	922	-	-	16	40	40	1.0	5.9	B	-	60	58	30	-2----	922	SBR
WBT	930	1800	35	10	46	22	1.0	17.5	C	2	30	28	0	1-----	930	WBT
WBL	931	-	-	94	431	22	1.0	17.5	C	-	30	28	0	1-----	931	WBL
WBR	932	-	-	18	83	22	1.0	17.5	C	-	30	28	0	1-----	932	WBR
NBT	940	3600	35	520	1915	27	1.0	5.3	B	3	60	58	30	-2----	940	NBT
NBL	941	-	-	55	203	27	1.0	5.3	B	-	60	58	30	-2----	941	NBL
NBR	942	-	-	55	203	27	1.0	5.3	B	-	60	58	30	-2----	942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1953 WEIGHTED AVERAGE DELAY = 8.2 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .40/A WEIGHTED AVERAGE DELAY = 8.5 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 10 - LAUREL STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	1010	1800	35	17	51	33	1.0	23.7	C	2	20	18	0	1-----	1010	EBT
EBL	1011	-	-	30	90	33	1.0	23.7	C	-	20	18	0	1-----	1011	EBL
EBR	1012	-	-	73	219	33	1.0	23.7	C	-	20	18	0	1-----	1012	EBR
* SBT	1020	3600	35	1132	2453	46	1.0	3.3	A	6	70	68	20	-2----	1020	SBT *
SBL	1021	-	-	101	219	46	1.0	3.3	A	-	70	68	20	-2----	1021	SBL
SBR	1022	-	-	22	48	46	1.0	3.3	A	-	70	68	20	-2----	1022	SBR
* WBT	1030	1800	35	19	41	46	1.0	24.9	C	4	20	18	0	1-----	1030	WBT *
WBL	1031	-	-	45	98	46	1.0	24.9	C	-	20	18	0	1-----	1031	WBL
WBR	1032	-	-	102	221	46	1.0	24.9	C	-	20	18	0	1-----	1032	WBR
NBT	1040	3600	35	488	2300	21	1.0	2.5	A	2	70	68	20	-2----	1040	NBT
NBL	1041	-	-	34	160	21	1.0	2.5	A	-	70	68	20	-2----	1041	NBL
NBR	1042	-	-	55	259	21	1.0	2.5	A	-	70	68	20	-2----	1042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2118 WEIGHTED AVERAGE DELAY = 5.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .46/A WEIGHTED AVERAGE DELAY = 5.8 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
AS PART OF
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MONITOR

INTERSECTION # 11 - OLIVE STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	1110	1800	35	164	280	59	1.0	20.6	C	7	31	29	0	1-----	1110	EBT *
EBL	1111	-	-	55	94	59	1.0	20.6	C	-	31	29	0	1-----	1111	EBL
EBR	1112	-	-	121	206	59	1.0	20.6	C	-	31	29	0	1-----	1112	EBR
* SBT	1120	3600	35	1266	2105	60	1.0	7.8	B	10	59	57	31	-2----	1120	SBT *
SBL	1121	-	-	49	81	60	1.0	7.8	B	-	59	57	31	-2----	1121	SBL
SBR	1122	-	-	56	93	60	1.0	7.8	B	-	59	57	31	-2----	1122	SBR
WBT	1130	1800	35	81	209	39	1.0	18.2	C	4	31	29	0	1-----	1130	WBT
WBL	1131	-	-	97	250	39	1.0	18.2	C	-	31	29	0	1-----	1131	WBL
WBR	1132	-	-	47	121	39	1.0	18.2	C	-	31	29	0	1-----	1132	WBR
NBT	1140	3600	35	476	1742	27	1.0	5.6	B	3	59	57	31	-2----	1140	NBT
NBL	1141	-	-	44	161	27	1.0	5.6	B	-	59	57	31	-2----	1141	NBL
NBR	1142	-	-	103	377	27	1.0	5.6	B	-	59	57	31	-2----	1142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2559 WEIGHTED AVERAGE DELAY = 9.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .60/A WEIGHTED AVERAGE DELAY = 10.3 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 12 - "C" STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	1210	1800	35	105	302	35	1.0	21.6	C	3	24	22	0	1-----	1210	EBT
EBL	1211	-	-	48	138	35	1.0	21.6	C	-	24	22	0	1-----	1211	EBL
EBR	1212	1800	35	102	440	23	1.0	20.8	C	2	24	22	0	1-----	1212	EBR
* SBT	1220	3600	35	1246	2473	50	1.0	4.6	A	7	66	64	24	-2----	1220	SBT *
SBL	1221	1300	35	46	924	5	1.0	3.0	A	0	66	64	24	-2----	1221	SBL
SBR	1222	-	-	44	87	50	1.0	4.6	A	-	66	64	24	-2----	1222	SBR
* WBT	1230	1800	35	123	242	51	1.0	23.2	C	5	24	22	0	1-----	1230	WBT *
WBL	1231	-	-	101	198	51	1.0	23.2	C	-	24	22	0	1-----	1231	WBL
WBR	1232	1800	35	38	440	9	1.0	20.0	C	1	24	22	0	1-----	1232	WBR
NBT	1240	3600	35	457	2354	19	1.0	3.3	A	2	66	64	24	-2----	1240	NBT
NBL	1241	1300	35	56	924	6	1.0	3.0	A	0	66	64	24	-2----	1241	NBL
NBR	1242	-	-	40	206	19	1.0	3.3	A	-	66	64	24	-2----	1242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2406 WEIGHTED AVERAGE DELAY = 8.0 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .51/A WEIGHTED AVERAGE DELAY = 7.4 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 13 - "E" STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* SBT	1320	3600	35	1614	3205	50	1.0	.6	A	3	84	82	6	-2----	1320	SBT *
SBL	1321	-	-	38	75	50	1.0	.6	A	-	84	82	6	-2----	1321	SBL
WBL	1331	1700	35	10	76	13	1.0	31.5	D	0	6	4	0	1-----	1331	WBL
* WBR	1332	1800	35	39	80	49	1.0	35.7	D-	1	6	4	0	1-----	1332	WBR *
NBT	1340	3600	35	611	3212	19	1.0	.3	A	1	84	82	6	-2----	1340	NBT
NBR	1342	-	-	13	68	19	1.0	.3	A	-	84	82	6	-2----	1342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2325 WEIGHTED AVERAGE DELAY = 1.3 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .50/A WEIGHTED AVERAGE DELAY = 1.4 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 14 - VALLEY BLVD @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	1410	3600	35	535	721	74	1.0	20.6	C	10	35	33	0	1-----	1410	EBT *
EBL	1411	1300	35	69	477	14	1.0	14.5	B	1	35	33	0	1-----	1411	EBL
EBR	1412	-	-	444	599	74	1.0	20.6	C	-	35	33	0	1-----	1412	EBR
* SBT	1420	3600	35	1221	1614	76	1.0	11.7	B	14	55	53	35	-2----	1420	SBT *
SBL	1421	-	-	257	340	76	1.0	11.7	B	-	55	53	35	-2----	1421	SBL
SBR	1422	-	-	126	167	76	1.0	11.7	B	-	55	53	35	-2----	1422	SBR
WBT	1430	1800	35	445	660	67	1.0	20.3	C	9	35	33	0	1-----	1430	WBT
WBL	1431	1100	35	227	403	56	1.0	18.7	C	4	35	33	0	1-----	1431	WBL
WBR	1432	1800	35	84	660	13	1.0	14.4	B	1	35	33	0	1-----	1432	WBR
NBT	1440	3600	35	542	885	61	1.0	9.5	B	10	55	53	35	-2----	1440	NBT
NBL	1441	-	-	601	982	61	1.0	9.5	B	-	55	53	35	-2----	1441	NBL
NBR	1442	-	-	155	253	61	1.0	9.5	B	-	55	53	35	-2----	1442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4706 WEIGHTED AVERAGE DELAY = 14.2 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .75/C WEIGHTED AVERAGE DELAY = 15.0 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 15 - I-10 W/B @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	SBT	1520	3600	35	1503	1600	94**	1.0	26.9	D+	18	42	40	48	--3---	1520	SBT	*
	SBR	1522	1800	35	536	800	67	1.0	16.7	C	10	42	40	48	--3---	1522	SBR	
	WBL	1531	1700	35	273	661	41	1.0	15.5	C	5	37	35	0	1-----	1531	WBL	
*	WBR	1532	1800	35	645	700	92**	1.0	33.3	D	15	37	35	0	1-----	1532	WBR	*
	NBT	1540	3600	35	823	2040	40	1.0	8.4	B	5	53	51	37	-23---	1540	NBT	
*	NBL	1541	1700	35	155	170	91**	1.0	62.9	F	4	11	9	37	-2----	1541	NBL	*

INTERSECTION SUMMARY : TOTAL FLOW = 3935 WEIGHTED AVERAGE DELAY = 23.3 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .93/E WEIGHTED AVERAGE DELAY = 31.1 DELAY LOS = D SYSTEM (BG) OFFSET = 86

INTERSECTION # 16 - I-10 E/B @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBL	1611	1700	35	200	302	66	1.0	30.1	D	5	18	16	0	1-----	1611	EBL	
*	EBR	1612	1800	35	271	320	85	1.0	40.6	E+	7	18	16	0	1-----	1612	EBR	*
	SBT	1620	3600	35	1053	2800	38	1.0	2.4	A	4	72	70	18	-23---	1620	SBT	
*	SBL	1621	1700	35	681	793	86	1.0	23.2	C	15	44	42	18	-2----	1621	SBL	*
*	NBT	1640	3600	35	779	937	83	1.0	27.1	D+	10	28	26	62	--3---	1640	NBT	*
	NBR	1642	-	-	86	103	83	1.0	27.1	D+	-	28	26	62	--3---	1642	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3070 WEIGHTED AVERAGE DELAY = 19.2 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .85/D WEIGHTED AVERAGE DELAY = 27.7 DELAY LOS = D+ SYSTEM (BG) OFFSET = 86

INTERSECTION # 17 - MILL STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	1710	1800	35	582	932	62	1.0	9.2	B	11	57	55	12	--3---	1710	EBT *
EBL	1711	1700	35	13	57	23	1.0	32.6	D	0	5	3	0	1-----	1711	EBL
EBR	1712	-	-	105	168	62	1.0	9.2	B	-	57	55	12	--3---	1712	EBR
SBT	1720	1800	35	26	118	22	1.0	22.4	C	2	21	19	69	---4--	1720	SBT
SBL	1721	-	-	33	149	22	1.0	22.4	C	-	21	19	69	---4--	1721	SBL
SBR	1722	-	-	25	113	22	1.0	22.4	C	-	21	19	69	---4--	1722	SBR
WBT	1730	1800	35	246	1182	21	1.0	3.9	A	2	64	62	5	-23---	1730	WBT
* WBL	1731	1700	35	95	189	50	1.0	30.5	D	2	12	10	0	12----	1731	WBL *
WBR	1732	-	-	12	58	21	1.0	3.9	A	-	64	62	5	-23---	1732	WBR
* NBT	1740	1800	35	17	27	62	1.0	26.9	D+	5	21	19	69	---4--	1740	NBT *
NBL	1741	1400	35	43	296	15	1.0	22.0	C	1	21	19	69	---4--	1741	NBL
NBR	1742	-	-	220	353	62	1.0	26.9	D+	-	21	19	69	---4--	1742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1417   WEIGHTED AVERAGE DELAY = 14.0   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .61/B   WEIGHTED AVERAGE DELAY = 15.3   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 18 - JOHNSTON STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	1810	1800	35	15	54	28	1.0	16.3	C	3	33	31	0	1-----	1810	EBT *
EBL	1811	-	-	89	323	28	1.0	16.3	C	-	33	31	0	1-----	1811	EBL
EBR	1812	-	-	67	243	28	1.0	16.3	C	-	33	31	0	1-----	1812	EBR
* SBT	1820	1800	35	257	933	28	1.0	6.3	B	4	57	55	33	-2----	1820	SBT *
SBL	1821	-	-	10	36	28	1.0	6.3	B	-	57	55	33	-2----	1821	SBL
SBR	1822	-	-	36	131	28	1.0	6.3	B	-	57	55	33	-2----	1822	SBR
WBT	1830	1800	35	18	243	7	1.0	15.1	C	1	33	31	0	1-----	1830	WBT
WBL	1831	-	-	10	135	7	1.0	15.1	C	-	33	31	0	1-----	1831	WBL
WBR	1832	-	-	18	243	7	1.0	15.1	C	-	33	31	0	1-----	1832	WBR
NBT	1840	1800	35	141	791	18	1.0	5.8	B	2	57	55	33	-2----	1840	NBT
NBL	1841	-	-	45	253	18	1.0	5.8	B	-	57	55	33	-2----	1841	NBL
NBR	1842	-	-	10	56	18	1.0	5.8	B	-	57	55	33	-2----	1842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 716   WEIGHTED AVERAGE DELAY = 9.1   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .28/A   WEIGHTED AVERAGE DELAY = 9.9   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 19 - CITRUS STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	1910	1800	35	11	107	10	1.0	21.2	C	1	22	20	0	1-----	1910	EBT	
	EBL	1911	-	-	30	293	10	1.0	21.2	C	-	22	20	0	1-----	1911	EBL	
*	EBR	1912	1800	35	91	400	23	1.0	21.9	C	2	22	20	0	1-----	1912	EBR	*
*	SBT	1920	1800	35	260	1144	23	1.0	2.9	A	2	68	66	22	-2----	1920	SBT	*
	SBL	1921	-	-	10	44	23	1.0	2.9	A	-	68	66	22	-2----	1921	SBL	
	SBR	1922	-	-	30	132	23	1.0	2.9	A	-	68	66	22	-2----	1922	SBR	
	WBT	1930	1800	35	10	133	7	1.0	21.1	C	1	22	20	0	1-----	1930	WBT	
	WBL	1931	-	-	10	133	7	1.0	21.1	C	-	22	20	0	1-----	1931	WBL	
	WBR	1932	-	-	10	133	7	1.0	21.1	C	-	22	20	0	1-----	1932	WBR	
	NBT	1940	1800	35	137	1083	13	1.0	2.7	A	1	68	66	22	-2----	1940	NBT	
	NBL	1941	-	-	19	150	13	1.0	2.7	A	-	68	66	22	-2----	1941	NBL	
	NBR	1942	-	-	11	87	13	1.0	2.7	A	-	68	66	22	-2----	1942	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 629   WEIGHTED AVERAGE DELAY = 7.7   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .23/A   WEIGHTED AVERAGE DELAY = 7.4   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 20 - LAUREL STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	2010	1800	35	96	300	32	1.0	19.8	C	3	27	25	0	1-----	2010	EBT	*
	EBL	2011	-	-	39	122	32	1.0	19.8	C	-	27	25	0	1-----	2011	EBL	
	EBR	2012	-	-	25	78	32	1.0	19.8	C	-	27	25	0	1-----	2012	EBR	
*	SBT	2020	1800	35	298	925	32	1.0	4.6	A	4	63	61	27	-2----	2020	SBT	*
	SBL	2021	-	-	52	161	32	1.0	4.6	A	-	63	61	27	-2----	2021	SBL	
	SBR	2022	-	-	43	133	32	1.0	4.6	A	-	63	61	27	-2----	2022	SBR	
	WBT	2030	1800	35	76	302	25	1.0	19.3	C	2	27	25	0	1-----	2030	WBT	
	WBL	2031	-	-	27	107	25	1.0	19.3	C	-	27	25	0	1-----	2031	WBL	
	WBR	2032	-	-	23	91	25	1.0	19.3	C	-	27	25	0	1-----	2032	WBR	
	NBT	2040	1800	35	137	934	15	1.0	4.0	A	2	63	61	27	-2----	2040	NBT	
	NBL	2041	-	-	18	123	15	1.0	4.0	A	-	63	61	27	-2----	2041	NBL	
	NBR	2042	-	-	24	164	15	1.0	4.0	A	-	63	61	27	-2----	2042	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 858   WEIGHTED AVERAGE DELAY = 9.5   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .32/A   WEIGHTED AVERAGE DELAY = 9.0   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 21 - OLIVE STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2110	1800	35	171	448	38	1.0	15.2	C	5	37	35	0	1-----	2110	EBT *
EBL	2111	-	-	32	84	38	1.0	15.2	C	-	37	35	0	1-----	2111	EBL
EBR	2112	-	-	64	168	38	1.0	15.2	C	-	37	35	0	1-----	2112	EBR
* SBT	2120	1800	35	311	822	38	1.0	8.3	B	5	53	51	37	-2----	2120	SBT *
SBL	2121	-	-	51	135	38	1.0	8.3	B	-	53	51	37	-2----	2121	SBL
SBR	2122	-	-	24	63	38	1.0	8.3	B	-	53	51	37	-2----	2122	SBR
WBT	2130	1800	35	85	492	17	1.0	13.7	B	2	37	35	0	1-----	2130	WBT
WBL	2131	-	-	12	69	17	1.0	13.7	B	-	37	35	0	1-----	2131	WBL
WBR	2132	-	-	24	139	17	1.0	13.7	B	-	37	35	0	1-----	2132	WBR
NBT	2140	1800	35	145	783	19	1.0	7.2	B	2	53	51	37	-2----	2140	NBT
NBL	2141	-	-	34	183	19	1.0	7.2	B	-	53	51	37	-2----	2141	NBL
NBR	2142	-	-	10	54	19	1.0	7.2	B	-	53	51	37	-2----	2142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 963 WEIGHTED AVERAGE DELAY = 10.7 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .38/A WEIGHTED AVERAGE DELAY = 11.1 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 22 - "C" STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2210	1800	35	264	623	42	1.0	15.1	C	5	38	36	0	1-----	2210	EBT *
EBL	2211	-	-	28	66	42	1.0	15.1	C	-	38	36	0	1-----	2211	EBL
EBR	2212	-	-	13	31	42	1.0	15.1	C	-	38	36	0	1-----	2212	EBR
* SBT	2220	1800	35	216	522	41	1.0	9.0	B	6	52	50	38	-2----	2220	SBT *
SBL	2221	-	-	166	401	41	1.0	9.0	B	-	52	50	38	-2----	2221	SBL
SBR	2222	-	-	32	77	41	1.0	9.0	B	-	52	50	38	-2----	2222	SBR
WBT	2230	1800	35	145	509	28	1.0	14.0	B	3	38	36	0	1-----	2230	WBT
WBL	2231	-	-	60	211	28	1.0	14.0	B	-	38	36	0	1-----	2231	WBL
WBR	2232	1800	35	130	720	18	1.0	13.3	B	2	38	36	0	1-----	2232	WBR
NBT	2240	1800	35	70	583	12	1.0	7.3	B	1	52	50	38	-2----	2240	NBT
NBL	2241	-	-	10	83	12	1.0	7.3	B	-	52	50	38	-2----	2241	NBL
NBR	2242	-	-	40	333	12	1.0	7.3	B	-	52	50	38	-2----	2242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1174 WEIGHTED AVERAGE DELAY = 11.8 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .42/A WEIGHTED AVERAGE DELAY = 11.6 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 23 - "E" STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	2310	1800	35	280	576	49	1.0	15.8	C	6	38	36	0	1-----	2310	EBT	*
	EBL	2311	-	-	26	53	49	1.0	15.8	C	-	38	36	0	1-----	2311	EBL	
	EBR	2312	-	-	44	91	49	1.0	15.8	C	-	38	36	0	1-----	2312	EBR	
*	SBT	2320	1800	35	272	573	48	1.0	9.5	B	7	52	50	38	-2----	2320	SBT	*
	SBL	2321	-	-	165	347	48	1.0	9.5	B	-	52	50	38	-2----	2321	SBL	
	SBR	2322	-	-	38	80	48	1.0	9.5	B	-	52	50	38	-2----	2322	SBR	
	WBT	2330	1800	35	142	341	42	1.0	15.1	C	5	38	36	0	1-----	2330	WBT	
	WBL	2331	-	-	39	94	42	1.0	15.1	C	-	38	36	0	1-----	2331	WBL	
	WBR	2332	-	-	119	286	42	1.0	15.1	C	-	38	36	0	1-----	2332	WBR	
	NBT	2340	1800	35	74	565	13	1.0	7.3	B	2	52	50	38	-2----	2340	NBT	
	NBL	2341	-	-	10	76	13	1.0	7.3	B	-	52	50	38	-2----	2341	NBL	
	NBR	2342	-	-	47	359	13	1.0	7.3	B	-	52	50	38	-2----	2342	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1256 WEIGHTED AVERAGE DELAY = 12.3 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .48/A WEIGHTED AVERAGE DELAY = 12.2 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 24 - "H" STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	2410	1800	35	67	223	30	1.0	22.9	C	2	21	19	0	1-----	2410	EBT	*
	EBL	2411	-	-	10	33	30	1.0	22.9	C	-	21	19	0	1-----	2411	EBL	
	EBR	2412	-	-	37	123	30	1.0	22.9	C	-	21	19	0	1-----	2412	EBR	
*	SBT	2420	1800	35	265	908	29	1.0	2.9	A	3	69	67	21	-2----	2420	SBT	*
	SBL	2421	-	-	116	398	29	1.0	2.9	A	-	69	67	21	-2----	2421	SBL	
	SBR	2422	-	-	10	34	29	1.0	2.9	A	-	69	67	21	-2----	2422	SBR	
	WBT	2430	1800	35	39	190	21	1.0	22.3	C	2	21	19	0	1-----	2430	WBT	
	WBL	2431	-	-	24	117	21	1.0	22.3	C	-	21	19	0	1-----	2431	WBL	
	WBR	2432	-	-	15	73	21	1.0	22.3	C	-	21	19	0	1-----	2432	WBR	
	NBT	2440	1800	35	117	896	13	1.0	2.5	A	1	69	67	21	-2----	2440	NBT	
	NBL	2441	-	-	10	77	13	1.0	2.5	A	-	69	67	21	-2----	2441	NBL	
	NBR	2442	-	-	48	368	13	1.0	2.5	A	-	69	67	21	-2----	2442	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 758 WEIGHTED AVERAGE DELAY = 7.8 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .29/A WEIGHTED AVERAGE DELAY = 7.4 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
AS PART OF
THE TRAFFIC GROWTH MONITORING PROGRAM
MONITOR

INTERSECTION # 25 - VALLEY BLVD @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2510	3600	35	791	1845	43	1.0	10.2	B	6	49	47	0	1-----	2510	EBT *
EBL	2511	1200	35	121	627	19	1.0	8.7	B	2	49	47	0	1-----	2511	EBL
EBR	2512	-	-	15	35	43	1.0	10.2	B	-	49	47	0	1-----	2512	EBR
* SBT	2520	1800	35	10	23	43	1.0	13.8	B	6	41	39	49	-2----	2520	SBT *
SBL	2521	-	-	197	461	43	1.0	13.8	B	-	41	39	49	-2----	2521	SBL
SBR	2522	-	-	126	295	43	1.0	13.8	B	-	41	39	49	-2----	2522	SBR
WBT	2530	3600	35	534	1710	31	1.0	9.4	B	4	49	47	0	1-----	2530	WBT
WBL	2531	1400	35	10	731	1	1.0	7.9	B	0	49	47	0	1-----	2531	WBL
WBR	2532	-	-	53	170	31	1.0	9.4	B	-	49	47	0	1-----	2532	WBR
NBT	2540	1800	35	10	260	4	1.0	11.2	B	0	41	39	49	-2----	2540	NBT
NBL	2541	-	-	10	260	4	1.0	11.2	B	-	41	39	49	-2----	2541	NBL
NBR	2542	-	-	10	260	4	1.0	11.2	B	-	41	39	49	-2----	2542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1887 WEIGHTED AVERAGE DELAY = 10.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .43/A WEIGHTED AVERAGE DELAY = 11.2 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 26 - LAUREL STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2610	1800	35	51	278	18	1.0	14.8	B	2	35	33	0	1-----	2610	EBT *
EBL	2611	-	-	70	382	18	1.0	14.8	B	-	35	33	0	1-----	2611	EBL
EBR	2612	1800	35	28	660	4	1.0	14.0	B	0	35	33	0	1-----	2612	EBR
SBT	2620	3600	35	209	2120	10	1.0	6.2	B	1	55	53	35	-2----	2620	SBT
SBL	2621	1400	35	10	824	1	1.0	5.8	B	0	55	53	35	-2----	2621	SBL
SBR	2622	1800	35	10	1060	1	1.0	5.8	B	0	55	53	35	-2----	2622	SBR
WBT	2630	1800	35	52	429	12	1.0	14.4	B	1	35	33	0	1-----	2630	WBT
WBL	2631	-	-	28	231	12	1.0	14.4	B	-	35	33	0	1-----	2631	WBL
WBR	2632	1800	35	22	660	3	1.0	13.9	B	0	35	33	0	1-----	2632	WBR
* NBT	2640	3600	35	366	2037	18	1.0	6.5	B	2	55	53	35	-2----	2640	NBT *
NBL	2641	1400	35	15	824	2	1.0	5.9	B	0	55	53	35	-2----	2641	NBL
NBR	2642	-	-	15	83	18	1.0	6.5	B	-	55	53	35	-2----	2642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 876 WEIGHTED AVERAGE DELAY = 8.7 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .18/A WEIGHTED AVERAGE DELAY = 8.5 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 27 - OLIVE STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2710	1800	35	53	160	33	1.0	16.3	C	4	34	32	0	1-----	2710	EBT *
EBL	2711	-	-	149	450	33	1.0	16.3	C	-	34	32	0	1-----	2711	EBL
EBR	2712	-	-	10	30	33	1.0	16.3	C	-	34	32	0	1-----	2712	EBR
SBT	2720	1800	35	296	1080	27	1.0	6.6	B	3	56	54	34	-2----	2720	SBT
SBL	2721	1400	35	10	840	1	1.0	5.5	B	0	56	54	34	-2----	2721	SBL
SBR	2722	1800	35	59	1080	5	1.0	5.7	B	1	56	54	34	-2----	2722	SBR
WBT	2730	1800	35	58	470	12	1.0	14.9	B	1	34	32	0	1-----	2730	WBT
WBL	2731	-	-	10	81	12	1.0	14.9	B	-	34	32	0	1-----	2731	WBL
WBR	2732	-	-	11	89	12	1.0	14.9	B	-	34	32	0	1-----	2732	WBR
* NBT	2740	1800	35	360	1080	33	1.0	6.9	B	4	56	54	34	-2----	2740	NBT *
NBL	2741	1400	35	14	840	2	1.0	5.5	B	0	56	54	34	-2----	2741	NBL
NBR	2742	1800	35	10	1080	1	1.0	5.5	B	0	56	54	34	-2----	2742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1040   WEIGHTED AVERAGE DELAY = 9.2   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .33/A   WEIGHTED AVERAGE DELAY = 10.4   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 28 - "C" STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2810	1800	35	187	376	50	1.0	11.0	B	7	49	47	0	1-----	2810	EBT *
EBL	2811	-	-	193	388	50	1.0	11.0	B	-	49	47	0	1-----	2811	EBL
EBR	2812	-	-	88	177	50	1.0	11.0	B	-	49	47	0	1-----	2812	EBR
SBT	2820	1800	35	246	666	37	1.0	13.3	B	5	41	39	49	-2----	2820	SBT
SBL	2821	1400	35	33	607	5	1.0	11.3	B	0	41	39	49	-2----	2821	SBL
SBR	2822	-	-	42	114	37	1.0	13.3	B	-	41	39	49	-2----	2822	SBR
WBT	2830	1800	35	48	475	10	1.0	8.3	B	1	49	47	0	1-----	2830	WBT
WBL	2831	-	-	29	287	10	1.0	8.3	B	-	49	47	0	1-----	2831	WBL
WBR	2832	-	-	18	178	10	1.0	8.3	B	-	49	47	0	1-----	2832	WBR
* NBT	2840	1800	35	384	756	51	1.0	14.6	B	7	41	39	49	-2----	2840	NBT *
NBL	2841	1400	35	24	607	4	1.0	11.2	B	0	41	39	49	-2----	2841	NBL
NBR	2842	-	-	12	24	51	1.0	14.6	B	-	41	39	49	-2----	2842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1304   WEIGHTED AVERAGE DELAY = 12.4   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .50/A   WEIGHTED AVERAGE DELAY = 12.6   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 29 - "E" STREET @ LA CADENA STREE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2910	1800	35	23	84	27	1.0	23.9	C	2	19	17	0	1-----	2910	EBT *
EBL	2911	-	-	54	197	27	1.0	23.9	C	-	19	17	0	1-----	2911	EBL
EBR	2912	-	-	16	58	27	1.0	23.9	C	-	19	17	0	1-----	2912	EBR
SBT	2920	1800	35	281	1333	21	1.0	2.2	A	2	71	69	19	-2----	2920	SBT
SBL	2921	1400	35	12	1073	1	1.0	1.9	A	0	71	69	19	-2----	2921	SBL
SBR	2922	-	-	10	47	21	1.0	2.2	A	-	71	69	19	-2----	2922	SBR
WBT	2930	1800	35	15	146	10	1.0	23.0	C	1	19	17	0	1-----	2930	WBT
WBL	2931	-	-	10	97	10	1.0	23.0	C	-	19	17	0	1-----	2931	WBL
WBR	2932	-	-	10	97	10	1.0	23.0	C	-	19	17	0	1-----	2932	WBR
* NBT	2940	1800	35	358	1342	27	1.0	2.4	A	3	71	69	19	-2----	2940	NBT *
NBL	2941	1400	35	10	1073	1	1.0	1.9	A	0	71	69	19	-2----	2941	NBL
NBR	2942	-	-	10	37	27	1.0	2.4	A	-	71	69	19	-2----	2942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 809 WEIGHTED AVERAGE DELAY = 5.7 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .27/A WEIGHTED AVERAGE DELAY = 6.7 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 30 - "G" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	3010	1800	35	22	126	17	1.0	26.4	D+	1	14	12	0	1-----	3010	EBT
EBL	3011	-	-	10	57	17	1.0	26.4	D+	-	14	12	0	1-----	3011	EBL
EBR	3012	-	-	10	57	17	1.0	26.4	D+	-	14	12	0	1-----	3012	EBR
SBT	3020	1800	35	298	1432	21	1.0	1.3	A	2	76	74	14	-2----	3020	SBT
SBL	3021	1400	35	10	1151	1	1.0	1.1	A	0	76	74	14	-2----	3021	SBL
SBR	3022	-	-	10	48	21	1.0	1.3	A	-	76	74	14	-2----	3022	SBR
* WBT	3030	1800	35	38	155	25	1.0	26.7	D+	1	14	12	0	1-----	3030	WBT *
WBL	3031	-	-	10	41	25	1.0	26.7	D+	-	14	12	0	1-----	3031	WBL
WBR	3032	-	-	11	45	25	1.0	26.7	D+	-	14	12	0	1-----	3032	WBR
* NBT	3040	1800	35	356	1440	25	1.0	1.4	A	2	76	74	14	-2----	3040	NBT *
NBL	3041	1400	35	19	1151	2	1.0	1.1	A	0	76	74	14	-2----	3041	NBL
NBR	3042	-	-	10	40	25	1.0	1.4	A	-	76	74	14	-2----	3042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 804 WEIGHTED AVERAGE DELAY = 4.5 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .25/A WEIGHTED AVERAGE DELAY = 4.9 DELAY LOS = A SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 31 - "H" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	3110	1800	35	102	382	27	1.0	8.4	B	3	51	49	0	1-----	3110	EBT *
EBL	3111	1400	35	41	762	5	1.0	7.3	B	0	51	49	0	1-----	3111	EBL
EBR	3112	-	-	160	598	27	1.0	8.4	B	-	51	49	0	1-----	3112	EBR
SBT	3120	3600	35	315	1344	23	1.0	13.2	B	3	39	37	51	-2----	3120	SBT
SBL	3121	1400	35	12	576	2	1.0	12.0	B	0	39	37	51	-2----	3121	SBL
SBR	3122	-	-	32	136	23	1.0	13.2	B	-	39	37	51	-2----	3122	SBR
WBT	3130	1800	35	75	826	9	1.0	7.5	B	1	51	49	0	1-----	3130	WBT
WBL	3131	1400	35	32	762	4	1.0	7.3	B	0	51	49	0	1-----	3131	WBL
WBR	3132	-	-	14	154	9	1.0	7.5	B	-	51	49	0	1-----	3132	WBR
* NBT	3140	3600	35	325	1212	27	1.0	13.4	B	3	39	37	51	-2----	3140	NBT *
NBL	3141	1300	35	39	534	7	1.0	12.3	B	1	39	37	51	-2----	3141	NBL
NBR	3142	-	-	72	268	27	1.0	13.4	B	-	39	37	51	-2----	3142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1219 WEIGHTED AVERAGE DELAY = 11.4 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .27/A WEIGHTED AVERAGE DELAY = 11.4 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 32 - VALLEY BLVD @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	3210	3600	35	686	967	71	1.0	19.9	C	10	35	33	34	-2----	3210	EBT *
EBL	3211	1700	35	115	604	19	1.0	15.3	C	2	34	32	0	1-----	3211	EBL
EBR	3212	-	-	250	353	71	1.0	19.9	C	-	35	33	34	-2----	3212	EBR
SBT	3220	3600	35	338	580	58	1.0	25.2	D+	5	21	19	69	--3---	3220	SBT
SBL	3221	1300	35	64	274	23	1.0	22.5	C	1	21	19	69	--3---	3221	SBL
SBR	3222	-	-	105	180	58	1.0	25.2	D+	-	21	19	69	--3---	3222	SBR
WBT	3230	3600	35	413	1320	31	1.0	15.6	C	3	35	33	34	-2----	3230	WBT
* WBL	3231	1700	35	427	604	71	1.0	21.7	C	9	34	32	0	1-----	3231	WBL *
WBR	3232	1800	35	12	660	2	1.0	13.8	B	0	35	33	34	-2----	3232	WBR
* NBT	3240	3600	35	319	453	70	1.0	27.2	D+	6	21	19	69	--3---	3240	NBT *
NBL	3241	1200	35	154	253	61	1.0	27.5	D+	3	21	19	69	--3---	3241	NBL
NBR	3242	-	-	216	307	70	1.0	27.2	D+	-	21	19	69	--3---	3242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3099 WEIGHTED AVERAGE DELAY = 21.8 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .71/C WEIGHTED AVERAGE DELAY = 22.4 DELAY LOS = C SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 33 - I-10 W/B @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	SBT	3320	3600	35	846	2943	29	1.0	1.1	A	2	78	76	12	-2----	3320	SBT	
	SBR	3322	-	-	28	97	29	1.0	1.1	A	-	78	76	12	-2----	3322	SBR	
*	WBT	3330	1800	35	10	36	28	1.0	28.1	D+	1	12	10	0	1-----	3330	WBT	*
	WBL	3331	-	-	36	129	28	1.0	28.1	D+	-	12	10	0	1-----	3331	WBL	
	WBR	3332	-	-	10	36	28	1.0	28.1	D+	-	12	10	0	1-----	3332	WBR	
*	NBT	3340	3600	35	682	2304	30	1.0	1.1	A	2	78	76	12	-2----	3340	NBT	*
	NBL	3341	-	-	218	736	30	1.0	1.1	A	-	78	76	12	-2----	3341	NBL	

INTERSECTION SUMMARY : TOTAL FLOW = 1830 WEIGHTED AVERAGE DELAY = 1.9 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .29/A WEIGHTED AVERAGE DELAY = 2.7 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 34 - "M" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	3410	1800	35	10	95	11	1.0	21.8	C	1	21	19	0	1-----	3410	EBT	
	EBL	3411	-	-	20	190	11	1.0	21.8	C	-	21	19	0	1-----	3411	EBL	
	EBR	3412	-	-	10	95	11	1.0	21.8	C	-	21	19	0	1-----	3412	EBR	
	SBT	3420	3600	35	821	2520	33	1.0	3.0	A	3	69	67	21	-2----	3420	SBT	
	SBL	3421	-	-	29	89	33	1.0	3.0	A	-	69	67	21	-2----	3421	SBL	
	SBR	3422	-	-	23	71	33	1.0	3.0	A	-	69	67	21	-2----	3422	SBR	
*	WBT	3430	1800	35	18	47	38	1.0	23.5	C	3	21	19	0	1-----	3430	WBT	*
	WBL	3431	-	-	76	198	38	1.0	23.5	C	-	21	19	0	1-----	3431	WBL	
	WBR	3432	-	-	52	135	38	1.0	23.5	C	-	21	19	0	1-----	3432	WBR	
*	NBT	3440	3600	35	933	2483	38	1.0	3.2	A	4	69	67	21	-2----	3440	NBT	*
	NBL	3441	-	-	12	32	38	1.0	3.2	A	-	69	67	21	-2----	3441	NBL	
	NBR	3442	-	-	62	165	38	1.0	3.2	A	-	69	67	21	-2----	3442	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2066 WEIGHTED AVERAGE DELAY = 4.9 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .38/A WEIGHTED AVERAGE DELAY = 5.7 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 35 - "N" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

	APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH	
	(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)	
*	EBT	3510	1800	35	18	45	40	1.0	18.8	C	4	30	28	0	1-----	3510	EBT	*
	EBL	3511	-	-	150	377	40	1.0	18.8	C	-	30	28	0	1-----	3511	EBL	
	EBR	3512	-	-	55	138	40	1.0	18.8	C	-	30	28	0	1-----	3512	EBR	
*	SBT	3520	3600	35	675	1713	39	1.0	5.9	B	5	60	58	30	-2----	3520	SBT	*
	SBL	3521	1400	35	10	902	1	1.0	4.4	A	0	60	58	30	-2----	3521	SBL	
	SBR	3522	-	-	239	607	39	1.0	5.9	B	-	60	58	30	-2----	3522	SBR	
	WBT	3530	1800	35	13	197	7	1.0	16.6	C	1	30	28	0	1-----	3530	WBT	
	WBL	3531	-	-	10	151	7	1.0	16.6	C	-	30	28	0	1-----	3531	WBL	
	WBR	3532	-	-	14	212	7	1.0	16.6	C	-	30	28	0	1-----	3532	WBR	
	NBT	3540	3600	35	742	2289	32	1.0	5.5	B	4	60	58	30	-2----	3540	NBT	
	NBL	3541	1400	35	34	902	4	1.0	4.4	A	0	60	58	30	-2----	3541	NBL	
	NBR	3542	-	-	10	31	32	1.0	5.5	B	-	60	58	30	-2----	3542	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1970 WEIGHTED AVERAGE DELAY = 7.4 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .40/A WEIGHTED AVERAGE DELAY = 8.4 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 36 - 7TH STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

	APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH	
	(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)	
	EBT	3610	1800	35	10	48	21	1.0	27.1	D+	1	13	11	0	1-----	3610	EBT	
	EBL	3611	-	-	10	48	21	1.0	27.1	D+	-	13	11	0	1-----	3611	EBL	
	EBR	3612	-	-	26	124	21	1.0	27.1	D+	-	13	11	0	1-----	3612	EBR	
	SBT	3620	3600	35	655	2405	27	1.0	1.2	A	2	77	75	13	-2----	3620	SBT	
	SBL	3621	-	-	148	543	27	1.0	1.2	A	-	77	75	13	-2----	3621	SBL	
	SBR	3622	-	-	14	51	27	1.0	1.2	A	-	77	75	13	-2----	3622	SBR	
*	WBT	3630	1800	35	18	26	70	1.0	35.3	D-	4	13	11	0	1-----	3630	WBT	*
	WBL	3631	-	-	10	14	70	1.0	35.3	D-	-	13	11	0	1-----	3631	WBL	
	WBR	3632	-	-	125	180	70	1.0	35.3	D-	-	13	11	0	1-----	3632	WBR	
*	NBT	3640	1800	35	982	1388	71	1.0	3.5	A	11	77	75	13	-2----	3640	NBT	*
	NBL	3641	-	-	35	49	71	1.0	3.5	A	-	77	75	13	-2----	3641	NBL	
	NBR	3642	-	-	44	62	71	1.0	3.5	A	-	77	75	13	-2----	3642	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2077 WEIGHTED AVERAGE DELAY = 5.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .71/C WEIGHTED AVERAGE DELAY = 7.5 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 37 - FOGG STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	3710	1800	35	32	70	46	1.0	24.8	C	4	20	18	0	1-----	3710	EBT *
EBL	3711	-	-	18	40	46	1.0	24.8	C	-	20	18	0	1-----	3711	EBL
EBR	3712	-	-	114	250	46	1.0	24.8	C	-	20	18	0	1-----	3712	EBR
SBT	3720	1800	35	365	1133	32	1.0	2.8	A	3	70	68	20	-2----	3720	SBT
SBL	3721	-	-	10	31	32	1.0	2.8	A	-	70	68	20	-2----	3721	SBL
SBR	3722	-	-	63	196	32	1.0	2.8	A	-	70	68	20	-2----	3722	SBR
WBT	3730	1800	35	12	62	19	1.0	22.8	C	1	20	18	0	1-----	3730	WBT
WBL	3731	-	-	48	247	19	1.0	22.8	C	-	20	18	0	1-----	3731	WBL
WBR	3732	-	-	10	51	19	1.0	22.8	C	-	20	18	0	1-----	3732	WBR
* NBT	3740	1800	35	473	1069	44	1.0	3.3	A	6	70	68	20	-2----	3740	NBT *
NBL	3741	-	-	34	77	44	1.0	3.3	A	-	70	68	20	-2----	3741	NBL
NBR	3742	-	-	95	215	44	1.0	3.3	A	-	70	68	20	-2----	3742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1274 WEIGHTED AVERAGE DELAY = 6.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .45/A WEIGHTED AVERAGE DELAY = 7.9 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 38 - FOGG STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* SBT	3820	3600	35	837	2960	28	1.0	1.4	A	2	76	74	14	-2----	3820	SBT *
SBL	3821	1300	35	39	1069	4	1.0	1.1	A	0	76	74	14	-2----	3821	SBL
WBL	3831	1700	35	10	227	4	1.0	25.9	D+	0	14	12	0	1-----	3831	WBL
* WBR	3832	1800	35	70	240	29	1.0	27.0	D+	2	14	12	0	1-----	3832	WBR *
NBT	3840	3600	35	548	2907	19	1.0	1.3	A	1	76	74	14	-2----	3840	NBT
NBR	3842	-	-	10	53	19	1.0	1.3	A	-	76	74	14	-2----	3842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1514 WEIGHTED AVERAGE DELAY = 2.7 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .28/A WEIGHTED AVERAGE DELAY = 3.4 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 39 - RANCHO AVENUE @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBL	3911	1700	35	15	623	2	1.0	13.9	B	0	35	33	0	1-----	3911	EBL
* EBR	3912	1800	35	806	660	122**	1.0	157.8	F	33	35	33	0	1-----	3912	EBR *
SBT	3920	1800	35	500	1004	50	1.0	8.5	B	7	55	53	35	-2----	3920	SBT
SBR	3922	-	-	28	56	50	1.0	8.5	B	-	55	53	35	-2----	3922	SBR
NBT	3940	1800	35	588	1060	55	1.0	9.1	B	9	55	53	35	-2----	3940	NBT
* NBL	3941	800	35	564	471	120**	1.0	141.9	F	28	55	53	35	-2----	3941	NBL *

INTERSECTION SUMMARY : TOTAL FLOW = 2501 WEIGHTED AVERAGE DELAY = 86.9 DELAY LOS = F CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.21/F WEIGHTED AVERAGE DELAY = 151.3 DELAY LOS = F SYSTEM (BG) OFFSET = 86

<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

INTERSECTION # 40 - WASHINGTON STRE @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	4010	1800	35	10	287	3	1.0	9.5	B	0	45	43	0	1-----	4010	EBT
EBL	4011	-	-	10	287	3	1.0	9.5	B	-	45	43	0	1-----	4011	EBL
EBR	4012	-	-	10	287	3	1.0	9.5	B	-	45	43	0	1-----	4012	EBR
SBT	4020	1800	35	10	287	3	1.0	9.5	B	0	45	43	45	-2----	4020	SBT
SBL	4021	-	-	10	287	3	1.0	9.5	B	-	45	43	45	-2----	4021	SBL
SBR	4022	-	-	10	287	3	1.0	9.5	B	-	45	43	45	-2----	4022	SBR
* WBT	4030	1800	35	10	287	3	1.0	9.5	B	0	45	43	0	1-----	4030	WBT *
WBL	4031	-	-	10	287	3	1.0	9.5	B	-	45	43	0	1-----	4031	WBL
WBR	4032	-	-	10	287	3	1.0	9.5	B	-	45	43	0	1-----	4032	WBR
* NBT	4040	1800	35	10	287	3	1.0	9.5	B	0	45	43	45	-2----	4040	NBT *
NBL	4041	-	-	10	287	3	1.0	9.5	B	-	45	43	45	-2----	4041	NBL
NBR	4042	-	-	10	287	3	1.0	9.5	B	-	45	43	45	-2----	4042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 120 WEIGHTED AVERAGE DELAY = 9.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .03/A WEIGHTED AVERAGE DELAY = 9.5 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 41 - BARTON ROAD @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	SBT	4120	3600	35	769	2920	26	1.0	1.6	A	2	75	73	15	-2----	4120	SBT	
*	SBL	4121	700	35	655	568	115**	1.0	113.0	F	33	75	73	15	-2----	4121	SBL	*
	WBL	4131	1700	35	144	246	59	1.0	30.1	D	3	15	13	0	1-----	4131	WBL	
*	WBR	4132	1800	35	305	260	117**	1.0	150.6	F	14	15	13	0	1-----	4132	WBR	*
	NBT	4140	3600	35	713	2920	24	1.0	1.5	A	2	75	73	15	-2----	4140	NBT	
	NBR	4142	1800	35	181	1460	12	1.0	1.4	A	1	75	73	15	-2----	4142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2767 WEIGHTED AVERAGE DELAY = 45.8 DELAY LOS = E CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.16/F WEIGHTED AVERAGE DELAY = 124.9 DELAY LOS = F SYSTEM (BG) OFFSET = 86

<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

INTERSECTION # 42 - I-215 S/B @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBL	4211	1700	35	686	774	89	1.0	26.0	D+	15	43	41	0	1-----	4211	EBL	*
	EBR	4212	1800	35	597	820	73	1.0	17.6	C	12	43	41	0	1-----	4212	EBR	
	SBT	4220	1800	35	391	900	43	1.0	11.2	B	6	47	45	43	-2----	4220	SBT	
*	NBT	4240	1800	35	781	900	87	1.0	21.9	C	17	47	45	43	-2----	4240	NBT	*

INTERSECTION SUMMARY : TOTAL FLOW = 2455 WEIGHTED AVERAGE DELAY = 20.3 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .88/D WEIGHTED AVERAGE DELAY = 23.8 DELAY LOS = C SYSTEM (BG) OFFSET = 86

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INTERSECTION # 43 - I-215 N/B @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	SBT	4320	1800	35	771	1055	73	1.0	6.1	B	13	70	68	20	-2----	4320	SBT	*
	SBL	4321	-	-	223	305	73	1.0	6.1	B	-	70	68	20	-2----	4321	SBL	
	WBL	4331	1700	35	22	340	6	1.0	22.2	C	0	20	18	0	1-----	4331	WBL	
*	WBR	4332	1800	35	267	360	74	1.0	31.4	D	6	20	18	0	1-----	4332	WBR	*
	NBT	4340	1800	35	521	923	56	1.0	4.0	A	8	70	68	20	-2----	4340	NBT	
	NBR	4342	-	-	247	437	56	1.0	4.0	A	-	70	68	20	-2----	4342	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2051 WEIGHTED AVERAGE DELAY = 8.8 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .73/C WEIGHTED AVERAGE DELAY = 11.5 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 44 - "H" STREET @ 9TH STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	4410	1800	35	74	259	29	1.0	19.5	C	3	27	25	0	1-----	4410	EBT	*
	EBL	4411	-	-	45	157	29	1.0	19.5	C	-	27	25	0	1-----	4411	EBL	
	EBR	4412	-	-	24	84	29	1.0	19.5	C	-	27	25	0	1-----	4412	EBR	
*	SBT	4420	1800	35	325	1126	29	1.0	4.5	A	4	63	61	27	-2----	4420	SBT	*
	SBL	4421	1400	35	10	949	1	1.0	3.6	A	0	63	61	27	-2----	4421	SBL	
	SBR	4422	-	-	27	94	29	1.0	4.5	A	-	63	61	27	-2----	4422	SBR	
	WBT	4430	1800	35	48	245	20	1.0	18.9	C	2	27	25	0	1-----	4430	WBT	
	WBL	4431	-	-	38	194	20	1.0	18.9	C	-	27	25	0	1-----	4431	WBL	
	WBR	4432	-	-	12	61	20	1.0	18.9	C	-	27	25	0	1-----	4432	WBR	
	NBT	4440	1800	35	155	1146	14	1.0	3.9	A	1	63	61	27	-2----	4440	NBT	
	NBL	4441	1400	35	42	949	4	1.0	3.7	A	0	63	61	27	-2----	4441	NBL	
	NBR	4442	-	-	10	74	14	1.0	3.9	A	-	63	61	27	-2----	4442	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 810 WEIGHTED AVERAGE DELAY = 8.7 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .29/A WEIGHTED AVERAGE DELAY = 8.8 DELAY LOS = B SYSTEM (BG) OFFSET = 86

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INTERSECTION # 45 - VALLEY BLVD @ 9TH STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	4510	3600	35	657	1133	58	1.0	14.2	B	8	43	41	5	-2----	4510	EBT	*
	EBL	4511	1700	35	10	57	18	1.0	32.3	D	0	5	3	0	1-----	4511	EBL	
	EBR	4512	-	-	294	507	58	1.0	14.2	B	-	43	41	5	-2----	4512	EBR	
	SBT	4520	1800	35	106	440	24	1.0	20.8	C	2	24	22	48	--3---	4520	SBT	
	SBL	4521	1700	35	30	416	7	1.0	19.9	C	1	24	22	48	--3---	4521	SBL	
*	SBR	4522	1800	35	250	440	57	1.0	24.1	C	5	24	22	48	--3---	4522	SBR	*
	WBT	4530	3600	35	427	1522	28	1.0	11.7	B	3	43	41	5	-2----	4530	WBT	
*	WBL	4531	1700	35	22	57	39	1.0	34.7	D	1	5	3	0	1-----	4531	WBL	*
	WBR	4532	-	-	33	118	28	1.0	11.7	B	-	43	41	5	-2----	4532	WBR	
*	NBT	4540	1800	35	188	320	59	1.0	28.0	D+	4	18	16	72	---4--	4540	NBT	*
	NBL	4541	1700	35	170	302	56	1.0	27.6	D+	4	18	16	72	---4--	4541	NBL	
	NBR	4542	1800	35	104	320	33	1.0	24.8	C	2	18	16	72	---4--	4542	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2291 WEIGHTED AVERAGE DELAY = 18.0 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .57/A WEIGHTED AVERAGE DELAY = 18.1 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 46 - I-10 W/B @ 9TH STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	SBT	4620	1800	35	348	914	38	1.0	9.9	B	5	49	47	41	-2----	4620	SBT	*
	SBR	4622	-	-	10	26	38	1.0	9.9	B	-	49	47	41	-2----	4622	SBR	
*	WBT	4630	1800	35	41	105	39	1.0	13.4	B	5	41	39	0	1-----	4630	WBT	*
	WBL	4631	-	-	14	36	39	1.0	13.4	B	-	41	39	0	1-----	4631	WBL	
	WBR	4632	-	-	249	639	39	1.0	13.4	B	-	41	39	0	1-----	4632	WBR	
	NBT	4640	1800	35	214	898	24	1.0	9.0	B	3	49	47	41	-2----	4640	NBT	
	NBL	4641	-	-	10	42	24	1.0	9.0	B	-	49	47	41	-2----	4641	NBL	

INTERSECTION SUMMARY : TOTAL FLOW = 886 WEIGHTED AVERAGE DELAY = 10.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .38/A WEIGHTED AVERAGE DELAY = 11.5 DELAY LOS = B SYSTEM (BG) OFFSET = 86

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INTERSECTION # 47 - I-10 E/B @ 9TH STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
* EBL	4711	1700	35	145	406	36	1.0	21.1	C	3	25	23	0	1-----	4711	EBL *
EBR	4712	-	-	10	28	36	1.0	21.1	C	-	25	23	0	1-----	4712	EBR
* SBT	4720	1800	35	10	30	34	1.0	4.1	A	4	65	63	25	-2----	4720	SBT *
SBL	4721	-	-	417	1230	34	1.0	4.1	A	-	65	63	25	-2----	4721	SBL
NBT	4740	1800	35	10	630	2	1.0	3.1	A	0	65	63	25	-2----	4740	NBT
NBR	4742	-	-	10	630	2	1.0	3.1	A	-	65	63	25	-2----	4742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 602 WEIGHTED AVERAGE DELAY = 8.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .34/A WEIGHTED AVERAGE DELAY = 8.7 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 48 - GRANT AVENUE/CI @ MT VERNON AVE/L C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
EBT	4810	1800	35	316	451	70	1.0	25.9	D+	7	26	24	0	1-----	4810	EBT
* EBL	4811	1700	35	388	453	86	1.0	34.7	D	9	26	24	0	1-----	4811	EBL *
EBR	4812	-	-	20	29	70	1.0	25.9	D+	-	26	24	0	1-----	4812	EBR
* SBT	4820	3600	35	553	809	68	1.0	21.4	C	8	31	29	38	--34--	4820	SBT *
* SBL	4821	1700	35	358	453	79	1.0	29.9	D+	8	26	24	38	--3---	4821	SBL *
SBR	4822	-	-	240	351	68	1.0	21.4	C	-	31	29	38	--34--	4822	SBR
WBT	4830	1800	35	152	200	76	1.0	40.3	E+	4	12	10	26	-2----	4830	WBT
WBL	4831	1700	35	75	189	40	1.0	29.1	D+	2	12	10	26	-2----	4831	WBL
* WBR	4832	1800	35	157	200	79	1.0	42.4	E+	4	12	10	26	-2----	4832	WBR *
NBT	4840	3600	35	456	699	65	1.0	23.5	C	7	26	24	64	---45-	4840	NBT
NBL	4841	1700	35	12	359	3	1.0	21.5	C	0	21	19	69	----5-	4841	NBL
NBR	4842	-	-	170	261	65	1.0	23.5	C	-	26	24	64	---45-	4842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2897 WEIGHTED AVERAGE DELAY = 27.5 DELAY LOS = D+ CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .77/C WEIGHTED AVERAGE DELAY = 28.2 DELAY LOS = D+ SYSTEM (BG) OFFSET = 86

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INTERSECTION # 49 - LAUREL STREET @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	4911	1700	35	45	208	22	1.0	27.2	D+	1	13	11	0	1-----	4911	EBL *
EBR	4912	1800	35	33	220	15	1.0	26.9	D+	1	13	11	0	1-----	4912	EBR
* SBT	4920	3600	35	603	2787	22	1.0	1.2	A	1	77	75	13	-2----	4920	SBT *
SBR	4922	-	-	46	213	22	1.0	1.2	A	-	77	75	13	-2----	4922	SBR
NBT	4940	3600	35	495	3000	17	1.0	1.1	A	1	77	75	13	-2----	4940	NBT
NBL	4941	1300	35	45	1083	4	1.0	1.0	A	0	77	75	13	-2----	4941	NBL

INTERSECTION SUMMARY :   TOTAL FLOW = 1267   WEIGHTED AVERAGE DELAY = 2.7   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .22/A   WEIGHTED AVERAGE DELAY = 2.9   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 50 - OLIVE STREET @ MT VERNON AVE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBL	5011	1800	35	45	180	25	1.0	28.6	D+	1	11	9	0	1-----	5011	EBL
* EBR	5012	1700	35	49	170	29	1.0	28.8	D+	1	11	9	0	1-----	5012	EBR *
* SBT	5020	3600	35	802	2923	27	1.0	1.0	A	2	79	77	11	-2----	5020	SBT *
SBR	5022	-	-	43	157	27	1.0	1.0	A	-	79	77	11	-2----	5022	SBR
NBT	5040	3600	35	504	3080	16	1.0	.8	A	1	79	77	11	-2----	5040	NBT
NBL	5041	1400	35	33	1198	3	1.0	.7	A	0	79	77	11	-2----	5041	NBL

INTERSECTION SUMMARY :   TOTAL FLOW = 1476   WEIGHTED AVERAGE DELAY = 2.7   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .28/A   WEIGHTED AVERAGE DELAY = 2.5   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

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INTERSECTION # 51 - COLTON AVENUE @ MT VERNON AVENU C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	5110	1800	35	136	940	14	1.0	8.5	B	2	49	47	0	1-----	5110	EBT
EBL	5111	1400	35	39	731	5	1.0	8.1	B	0	49	47	0	1-----	5111	EBL
EBR	5112	1800	35	10	940	1	1.0	7.9	B	0	49	47	0	1-----	5112	EBR
* SBT	5120	3600	35	692	1426	49	1.0	14.2	B	7	41	39	49	-2----	5120	SBT *
SBL	5121	1400	35	30	607	5	1.0	11.2	B	0	41	39	49	-2----	5121	SBL
SBR	5122	-	-	65	134	49	1.0	14.2	B	-	41	39	49	-2----	5122	SBR
WBT	5130	1800	35	157	853	18	1.0	8.7	B	2	49	47	0	1-----	5130	WBT
* WBL	5131	1100	35	283	574	49	1.0	11.1	B	4	49	47	0	1-----	5131	WBL *
WBR	5132	-	-	16	87	18	1.0	8.7	B	-	49	47	0	1-----	5132	WBR
NBT	5140	3600	35	502	1243	40	1.0	13.5	B	5	41	39	49	-2----	5140	NBT
NBL	5141	1400	35	10	607	2	1.0	11.1	B	0	41	39	49	-2----	5141	NBL
NBR	5142	-	-	128	317	40	1.0	13.5	B	-	41	39	49	-2----	5142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2068 WEIGHTED AVERAGE DELAY = 12.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .49/A WEIGHTED AVERAGE DELAY = 13.3 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 52 - "C" STREET @ COLTON AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5210	1800	35	141	645	22	1.0	9.3	B	3	48	46	0	1-----	5210	EBT *
EBL	5211	-	-	50	229	22	1.0	9.3	B	-	48	46	0	1-----	5211	EBL
EBR	5212	-	-	10	46	22	1.0	9.3	B	-	48	46	0	1-----	5212	EBR
* SBT	5220	1800	35	128	575	22	1.0	11.8	B	3	42	40	48	-2----	5220	SBT *
SBL	5221	-	-	10	45	22	1.0	11.8	B	-	42	40	48	-2----	5221	SBL
SBR	5222	-	-	40	180	22	1.0	11.8	B	-	42	40	48	-2----	5222	SBR
WBT	5230	1800	35	56	678	8	1.0	8.6	B	1	48	46	0	1-----	5230	WBT
WBL	5231	-	-	10	121	8	1.0	8.6	B	-	48	46	0	1-----	5231	WBL
WBR	5232	-	-	10	121	8	1.0	8.6	B	-	48	46	0	1-----	5232	WBR
NBT	5240	1800	35	106	673	16	1.0	11.4	B	2	42	40	48	-2----	5240	NBT
NBL	5241	-	-	10	63	16	1.0	11.4	B	-	42	40	48	-2----	5241	NBL
NBR	5242	-	-	10	63	16	1.0	11.4	B	-	42	40	48	-2----	5242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 581 WEIGHTED AVERAGE DELAY = 10.4 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .22/A WEIGHTED AVERAGE DELAY = 10.4 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 53 - "E" STREET @ COLTON STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5310	1800	35	27	230	12	1.0	17.9	C	1	28	26	0	1-----	5310	EBT *
EBL	5311	-	-	23	196	12	1.0	17.9	C	-	28	26	0	1-----	5311	EBL
EBR	5312	-	-	11	94	12	1.0	17.9	C	-	28	26	0	1-----	5312	EBR
* SBT	5320	1800	35	111	958	12	1.0	4.1	A	1	62	60	28	-2----	5320	SBT *
SBL	5321	-	-	13	112	12	1.0	4.1	A	-	62	60	28	-2----	5321	SBL
SBR	5322	-	-	15	129	12	1.0	4.1	A	-	62	60	28	-2----	5322	SBR
WBT	5330	1800	35	26	294	9	1.0	17.8	C	1	28	26	0	1-----	5330	WBT
WBL	5331	-	-	10	113	9	1.0	17.8	C	-	28	26	0	1-----	5331	WBL
WBR	5332	-	-	10	113	9	1.0	17.8	C	-	28	26	0	1-----	5332	WBR
NBT	5340	1800	35	89	980	9	1.0	4.1	A	1	62	60	28	-2----	5340	NBT
NBL	5341	-	-	10	110	9	1.0	4.1	A	-	62	60	28	-2----	5341	NBL
NBR	5342	-	-	10	110	9	1.0	4.1	A	-	62	60	28	-2----	5342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 355 WEIGHTED AVERAGE DELAY = 8.3 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .12/A WEIGHTED AVERAGE DELAY = 8.3 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 54 - "F" STREET @ COLTON AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5410	1800	35	27	227	12	1.0	20.7	C	1	23	21	0	1-----	5410	EBT *
EBL	5411	-	-	13	109	12	1.0	20.7	C	-	23	21	0	1-----	5411	EBL
EBR	5412	-	-	10	84	12	1.0	20.7	C	-	23	21	0	1-----	5412	EBR
* SBT	5420	1800	35	134	1117	12	1.0	2.9	A	1	67	65	23	-2----	5420	SBT *
SBL	5421	-	-	12	100	12	1.0	2.9	A	-	67	65	23	-2----	5421	SBL
SBR	5422	-	-	10	83	12	1.0	2.9	A	-	67	65	23	-2----	5422	SBR
WBT	5430	1800	35	22	197	11	1.0	20.7	C	1	23	21	0	1-----	5430	WBT
WBL	5431	-	-	15	134	11	1.0	20.7	C	-	23	21	0	1-----	5431	WBL
WBR	5432	-	-	10	89	11	1.0	20.7	C	-	23	21	0	1-----	5432	WBR
NBT	5440	1800	35	67	1001	7	1.0	2.8	A	1	67	65	23	-2----	5440	NBT
NBL	5441	-	-	10	149	7	1.0	2.8	A	-	67	65	23	-2----	5441	NBL
NBR	5442	-	-	10	149	7	1.0	2.8	A	-	67	65	23	-2----	5442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 340 WEIGHTED AVERAGE DELAY = 7.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .12/A WEIGHTED AVERAGE DELAY = 7.2 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 55 - "H" STREET @ 10TH STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5510	1800	35	64	605	11	1.0	9.9	B	1	45	43	0	1-----	5510	EBT *
EBL	5511	-	-	14	132	11	1.0	9.9	B	-	45	43	0	1-----	5511	EBL
EBR	5512	-	-	13	123	11	1.0	9.9	B	-	45	43	0	1-----	5512	EBR
SBT	5520	1800	35	44	461	10	1.0	9.8	B	1	45	43	45	-2----	5520	SBT
SBL	5521	-	-	10	105	10	1.0	9.8	B	-	45	43	45	-2----	5521	SBL
SBR	5522	-	-	28	294	10	1.0	9.8	B	-	45	43	45	-2----	5522	SBR
WBT	5530	1800	35	55	614	9	1.0	9.8	B	1	45	43	0	1-----	5530	WBT
WBL	5531	-	-	10	112	9	1.0	9.8	B	-	45	43	0	1-----	5531	WBL
WBR	5532	-	-	12	134	9	1.0	9.8	B	-	45	43	0	1-----	5532	WBR
* NBT	5540	1800	35	64	605	11	1.0	9.9	B	1	45	43	45	-2----	5540	NBT *
NBL	5541	-	-	10	95	11	1.0	9.9	B	-	45	43	45	-2----	5541	NBL
NBR	5542	-	-	17	161	11	1.0	9.9	B	-	45	43	45	-2----	5542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 341 WEIGHTED AVERAGE DELAY = 9.8 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .11/A WEIGHTED AVERAGE DELAY = 9.9 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 56 - VALLEY BLVD @ 10TH STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	5610	3600	35	694	2434	29	1.0	4.2	A	3	64	62	0	1-----	5610	EBT
* EBL	5611	1100	35	230	758	30	1.0	4.3	A	2	64	62	0	1-----	5611	EBL *
EBR	5612	-	-	13	46	29	1.0	4.2	A	-	64	62	0	1-----	5612	EBR
SBT	5620	1800	35	10	70	14	1.0	19.2	C	1	26	24	64	-2----	5620	SBT
SBL	5621	-	-	14	97	14	1.0	19.2	C	-	26	24	64	-2----	5621	SBL
SBR	5622	-	-	45	313	14	1.0	19.2	C	-	26	24	64	-2----	5622	SBR
WBT	5630	3600	35	468	2418	19	1.0	3.8	A	2	64	62	0	1-----	5630	WBT
WBL	5631	1400	35	10	964	1	1.0	3.3	A	0	64	62	0	1-----	5631	WBL
WBR	5632	-	-	12	62	19	1.0	3.8	A	-	64	62	0	1-----	5632	WBR
* NBT	5640	1800	35	10	33	31	1.0	20.2	C	3	26	24	64	-2----	5640	NBT *
NBL	5641	-	-	127	415	31	1.0	20.2	C	-	26	24	64	-2----	5641	NBL
NBR	5642	-	-	10	33	31	1.0	20.2	C	-	26	24	64	-2----	5642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1643 WEIGHTED AVERAGE DELAY = 6.1 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .30/A WEIGHTED AVERAGE DELAY = 10.5 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 57 - "E" STREET @ MT VERNON AVENU C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5710	1800	35	10	29	35	1.0	32.1	D	1	7	5	0	1-----	5710	EBT *
EBL	5711	-	-	11	31	35	1.0	32.1	D	-	7	5	0	1-----	5711	EBL
EBR	5712	-	-	14	40	35	1.0	32.1	D	-	7	5	0	1-----	5712	EBR
* SBT	5720	3600	35	1132	3206	35	1.0	.5	A	2	83	81	7	-2----	5720	SBT *
SBL	5721	1400	35	10	1260	1	1.0	.3	A	0	83	81	7	-2----	5721	SBL
SBR	5722	-	-	12	34	35	1.0	.5	A	-	83	81	7	-2----	5722	SBR
WBT	5730	1800	35	10	33	30	1.0	31.6	D	1	7	5	0	1-----	5730	WBT
WBL	5731	-	-	10	33	30	1.0	31.6	D	-	7	5	0	1-----	5731	WBL
WBR	5732	-	-	10	33	30	1.0	31.6	D	-	7	5	0	1-----	5732	WBR
NBT	5740	3600	35	707	3195	22	1.0	.4	A	1	83	81	7	-2----	5740	NBT
NBL	5741	1400	35	10	1260	1	1.0	.3	A	0	83	81	7	-2----	5741	NBL
NBR	5742	-	-	10	45	22	1.0	.4	A	-	83	81	7	-2----	5742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1946 WEIGHTED AVERAGE DELAY = 1.5 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .35/A WEIGHTED AVERAGE DELAY = 1.5 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 58 - FAIRWAY DR/"F"S @ MT VERNON AVENU C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	5810	1800	35	32	253	13	1.0	21.9	C	1	21	19	0	1-----	5810	EBT
EBL	5811	1400	35	12	296	4	1.0	21.5	C	0	21	19	0	1-----	5811	EBL
EBR	5812	-	-	16	127	13	1.0	21.9	C	-	21	19	0	1-----	5812	EBR
* SBT	5820	3600	35	961	1702	56	1.0	13.2	B	8	45	43	45	--3---	5820	SBT *
* SBL	5821	1700	35	243	416	58	1.0	24.4	C	5	24	22	21	-2----	5821	SBL *
SBR	5822	-	-	10	18	56	1.0	13.2	B	-	45	43	45	--3---	5822	SBR
* WBT	5830	1800	35	28	48	59	1.0	26.2	D+	5	21	19	0	1-----	5830	WBT *
WBL	5831	1300	35	70	274	26	1.0	22.6	C	1	21	19	0	1-----	5831	WBL
WBR	5832	-	-	196	333	59	1.0	26.2	D+	-	21	19	0	1-----	5832	WBR
NBT	5840	3600	35	522	1474	35	1.0	11.3	B	4	45	43	45	--3---	5840	NBT
NBL	5841	1700	35	10	416	2	1.0	19.7	C	0	24	22	21	-2----	5841	NBL
NBR	5842	-	-	87	246	35	1.0	11.3	B	-	45	43	45	--3---	5842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2187 WEIGHTED AVERAGE DELAY = 15.8 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .58/A WEIGHTED AVERAGE DELAY = 17.1 DELAY LOS = C SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 59 - "H" STREET @ MT VERNON AVENU C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5910	1800	35	10	30	34	1.0	27.3	D+	2	14	12	0	1-----	5910	EBT *
EBL	5911	-	-	23	68	34	1.0	27.3	D+	-	14	12	0	1-----	5911	EBL
EBR	5912	-	-	48	142	34	1.0	27.3	D+	-	14	12	0	1-----	5912	EBR
* SBT	5920	3600	35	995	2859	35	1.0	1.6	A	3	76	74	14	-2----	5920	SBT *
SBL	5921	-	-	10	29	35	1.0	1.6	A	-	76	74	14	-2----	5921	SBL
SBR	5922	-	-	25	72	35	1.0	1.6	A	-	76	74	14	-2----	5922	SBR
WBT	5930	1800	35	10	42	24	1.0	26.7	D+	1	14	12	0	1-----	5930	WBT
WBL	5931	-	-	10	42	24	1.0	26.7	D+	-	14	12	0	1-----	5931	WBL
WBR	5932	-	-	37	156	24	1.0	26.7	D+	-	14	12	0	1-----	5932	WBR
NBT	5940	3600	35	533	2905	18	1.0	1.3	A	1	76	74	14	-2----	5940	NBT
NBL	5941	1400	35	15	1151	1	1.0	1.1	A	0	76	74	14	-2----	5941	NBL
NBR	5942	-	-	10	55	18	1.0	1.3	A	-	76	74	14	-2----	5942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1726 WEIGHTED AVERAGE DELAY = 3.5 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .35/A WEIGHTED AVERAGE DELAY = 3.4 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 60 - VALLEY BLVD @ MT VERNON AVENU C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	6010	3600	35	247	409	60	1.0	23.8	C	6	24	22	0	1-----	6010	EBT *
EBL	6011	1300	35	98	318	31	1.0	21.3	C	2	24	22	0	1-----	6011	EBL
EBR	6012	-	-	285	471	60	1.0	23.8	C	-	24	22	0	1-----	6012	EBR
* SBT	6020	3600	35	945	1605	59	1.0	10.9	B	9	51	49	39	--3---	6020	SBT *
SBL	6021	1700	35	10	246	4	1.0	25.2	D+	0	15	13	24	-2----	6021	SBL
SBR	6022	-	-	209	355	59	1.0	10.9	B	-	51	49	39	--3---	6022	SBR
WBT	6030	3600	35	122	358	34	1.0	21.4	C	3	24	22	0	1-----	6030	WBT
WBL	6031	-	-	135	396	34	1.0	21.4	C	-	24	22	0	1-----	6031	WBL
WBR	6032	-	-	43	126	34	1.0	21.4	C	-	24	22	0	1-----	6032	WBR
NBT	6040	3600	35	355	1669	21	1.0	8.1	B	2	51	49	39	--3---	6040	NBT
* NBL	6041	1700	35	143	246	58	1.0	30.0	D	3	15	13	24	-2----	6041	NBL *
NBR	6042	-	-	62	291	21	1.0	8.1	B	-	51	49	39	--3---	6042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2654 WEIGHTED AVERAGE DELAY = 15.7 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .59/A WEIGHTED AVERAGE DELAY = 16.1 DELAY LOS = C SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 61 - FAIRWAY DRIVE @ SPERRY DRIVE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	6110	3600	35	351	856	41	1.0	21.9	C	4	24	22	16	-2----	6110	EBT	*
	EBL	6111	1700	35	20	264	8	1.0	24.7	C	0	16	14	0	1-----	6111	EBL	
	EBR	6112	-	-	10	24	41	1.0	21.9	C	-	24	22	16	-2----	6112	EBR	
	SBT	6120	1800	35	10	259	4	1.0	7.6	B	0	50	48	40	--3---	6120	SBT	
	SBL	6121	1400	35	10	747	1	1.0	7.5	B	0	50	48	40	--3---	6121	SBL	
	SBR	6122	-	-	27	701	4	1.0	7.6	B	-	50	48	40	--3---	6122	SBR	
	WBT	6130	3600	35	178	833	21	1.0	20.6	C	2	24	22	16	-2----	6130	WBT	
*	WBL	6131	1700	35	109	264	41	1.0	26.7	D+	2	16	14	0	1-----	6131	WBL	*
	WBR	6132	-	-	10	47	21	1.0	20.6	C	-	24	22	16	-2----	6132	WBR	
*	NBT	6140	1800	35	10	25	41	1.0	9.7	B	6	50	48	40	--3---	6140	NBT	*
	NBL	6141	1300	35	77	693	11	1.0	7.9	B	1	50	48	40	--3---	6141	NBL	
	NBR	6142	-	-	381	935	41	1.0	9.7	B	-	50	48	40	--3---	6142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1193 WEIGHTED AVERAGE DELAY = 16.7 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .41/A WEIGHTED AVERAGE DELAY = 17.0 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 62 - I-10 E/B @ MT VERNON AVE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	6210	3600	35	590	2400	25	1.0	4.6	A	3	62	60	0	1-----	6210	EBT	
	EBL	6211	1100	35	275	733	37	1.0	5.3	B	3	62	60	0	1-----	6211	EBL	
*	SBL	6221	1700	35	306	491	62	1.0	23.0	C	7	28	26	62	-2----	6221	SBL	*
	SBR	6222	1800	35	175	520	34	1.0	19.3	C	3	28	26	62	-2----	6222	SBR	
*	WBT	6230	1800	35	625	1011	62	1.0	7.2	B	11	62	60	0	1-----	6230	WBT	*
	WBR	6232	-	-	117	189	62	1.0	7.2	B	-	62	60	0	1-----	6232	WBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2088 WEIGHTED AVERAGE DELAY = 9.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .62/B WEIGHTED AVERAGE DELAY = 11.8 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 63 - "M" STREET @ FOGG STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	6310	1800	35	74	1216	6	1.0	2.0	A	0	71	69	0	1-----	6310	EBT *
EBR	6312	-	-	10	164	6	1.0	2.0	A	-	71	69	0	1-----	6312	EBR
WBT	6330	1800	35	54	1164	5	1.0	1.9	A	0	71	69	0	1-----	6330	WBT
WBL	6331	-	-	10	216	5	1.0	1.9	A	-	71	69	0	1-----	6331	WBL
* NBL	6341	1700	35	10	161	6	1.0	22.8	C	0	19	17	71	-2----	6341	NBL *
NBR	6342	-	-	10	161	6	1.0	22.8	C	-	19	17	71	-2----	6342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 168 WEIGHTED AVERAGE DELAY = 4.4 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .06/A WEIGHTED AVERAGE DELAY = 6.0 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 64 - "M" STREET @ MT VERNON AVENU C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBL	6411	1700	35	49	132	37	1.0	30.8	D	1	9	7	0	1-----	6411	EBL
* EBR	6412	1800	35	100	140	71	1.0	41.7	E+	2	9	7	0	1-----	6412	EBR *
* SBT	6420	1800	35	957	1420	67	1.0	4.2	A	11	73	71	17	--3---	6420	SBT *
SBR	6422	1800	35	44	1420	3	1.0	1.6	A	0	73	71	17	--3---	6422	SBR
NBT	6440	1800	35	715	1580	45	1.0	1.0	A	4	81	79	9	-23---	6440	NBT
* NBL	6441	1700	35	82	113	72	1.0	45.0	E	2	8	6	9	-2----	6441	NBL *

INTERSECTION SUMMARY : TOTAL FLOW = 1947 WEIGHTED AVERAGE DELAY = 7.3 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .68/B WEIGHTED AVERAGE DELAY = 10.4 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 65 - COOLEY DRIVE @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	6510	1800	35	12	32	38	1.0	28.2	D+	2	13	11	0	1-----	6510	EBT
EBL	6511	-	-	44	117	38	1.0	28.2	D+	-	13	11	0	1-----	6511	EBL
EBR	6512	-	-	27	72	38	1.0	28.2	D+	-	13	11	0	1-----	6512	EBR
SBT	6520	5400	35	595	1580	38	1.0	15.5	C	4	36	34	54	--3---	6520	SBT
SBL	6521	1700	35	234	737	32	1.0	12.9	B	4	41	39	13	-2----	6521	SBL
SBR	6522	-	-	173	460	38	1.0	15.5	C	-	36	34	54	--3---	6522	SBR
WBT	6530	1800	35	34	220	15	1.0	26.9	D+	1	13	11	0	1-----	6530	WBT
WBL	6531	1300	35	66	159	42	1.0	28.9	D+	2	13	11	0	1-----	6531	WBL
* WBR	6532	1800	35	97	220	44	1.0	28.9	D+	2	13	11	0	1-----	6532	WBR *
* NBT	6540	5400	35	623	1436	43	1.0	16.0	C	5	36	34	54	--3---	6540	NBT *
* NBL	6541	1700	35	322	737	44	1.0	13.9	B	6	41	39	13	-2----	6541	NBL *
NBR	6542	-	-	262	604	43	1.0	16.0	C	-	36	34	54	--3---	6542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2489   WEIGHTED AVERAGE DELAY = 16.7   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .44/A   WEIGHTED AVERAGE DELAY = 16.4   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 66 - SAN ANTONIO DRI @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	6610	1800	35	10	32	32	1.0	15.6	C	4	35	33	0	1-----	6610	EBT *
EBL	6611	-	-	198	628	32	1.0	15.6	C	-	35	33	0	1-----	6611	EBL
EBR	6612	1800	35	16	660	2	1.0	13.9	B	0	35	33	0	1-----	6612	EBR
SBT	6620	5400	35	630	2565	25	1.0	6.8	B	3	55	53	35	-2----	6620	SBT
SBL	6621	1300	35	50	766	7	1.0	6.0	B	1	55	53	35	-2----	6621	SBL
SBR	6622	-	-	151	615	25	1.0	6.8	B	-	55	53	35	-2----	6622	SBR
WBT	6630	1800	35	10	100	10	1.0	14.3	B	1	35	33	0	1-----	6630	WBT
WBL	6631	-	-	10	100	10	1.0	14.3	B	-	35	33	0	1-----	6631	WBL
WBR	6632	-	-	46	460	10	1.0	14.3	B	-	35	33	0	1-----	6632	WBR
* NBT	6640	5400	35	932	3006	31	1.0	7.1	B	4	55	53	35	-2----	6640	NBT *
NBL	6641	1300	35	48	766	6	1.0	6.0	B	0	55	53	35	-2----	6641	NBL
NBR	6642	-	-	54	174	31	1.0	7.1	B	-	55	53	35	-2----	6642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2155   WEIGHTED AVERAGE DELAY = 8.0   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .31/A   WEIGHTED AVERAGE DELAY = 8.6   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

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INTERSECTION # 67 - CENTER POINT DR @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	6710	1800	35	10	73	14	1.0	26.8	D+	1	13	11	0	1-----	6710	EBT
EBL	6711	-	-	10	73	14	1.0	26.8	D+	-	13	11	0	1-----	6711	EBL
EBR	6712	-	-	10	73	14	1.0	26.8	D+	-	13	11	0	1-----	6712	EBR
SBT	6720	5400	35	489	4410	11	1.0	1.1	A	0	77	75	13	-2----	6720	SBT
SBL	6721	1400	35	30	1167	3	1.0	1.0	A	0	77	75	13	-2----	6721	SBL
SBR	6722	-	-	10	90	11	1.0	1.1	A	-	77	75	13	-2----	6722	SBR
* WBT	6730	1800	35	10	42	24	1.0	27.3	D+	1	13	11	0	1-----	6730	WBT *
WBL	6731	-	-	33	137	24	1.0	27.3	D+	-	13	11	0	1-----	6731	WBL
WBR	6732	-	-	10	42	24	1.0	27.3	D+	-	13	11	0	1-----	6732	WBR
* NBT	6740	5400	35	1075	4258	25	1.0	1.2	A	2	77	75	13	-2----	6740	NBT *
NBL	6741	1300	35	74	1083	7	1.0	1.0	A	0	77	75	13	-2----	6741	NBL
NBR	6742	-	-	61	242	25	1.0	1.2	A	-	77	75	13	-2----	6742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1822   WEIGHTED AVERAGE DELAY = 2.3   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .25/A   WEIGHTED AVERAGE DELAY = 2.4   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 68 - WASHINGTON ST W @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	6810	1800	35	416	460	90	1.0	40.3	E+	10	25	23	0	1-----	6810	EBT *
EBL	6811	1700	35	75	434	17	1.0	19.9	C	1	25	23	0	1-----	6811	EBL
EBR	6812	1800	35	84	1800	5	1.0	.0	A	0	90	90	0	1234--	6812	EBR
SBT	6820	1800	35	111	220	50	1.0	29.8	D+	3	13	11	77	---4--	6820	SBT
* SBL	6821	1700	35	399	453	88	1.0	37.1	D-	9	26	24	51	--3---	6821	SBL *
SBR	6822	1800	35	86	1800	5	1.0	.0	A	0	90	90	0	1234--	6822	SBR
* WBT	6830	1800	35	429	480	89	1.0	38.1	D-	10	26	24	25	-2----	6830	WBT *
WBL	6831	1700	35	27	453	6	1.0	18.7	C	0	26	24	25	-2----	6831	WBL
WBR	6832	1800	35	831	1800	46	1.0	.1	A	0	90	90	0	1234--	6832	WBR
* NBT	6840	3600	35	388	440	88	1.0	43.1	E+	5	13	11	77	---4--	6840	NBT *
NBL	6841	1700	35	255	453	56	1.0	22.9	C	5	26	24	51	--3---	6841	NBL
NBR	6842	1800	35	210	1800	12	1.0	.0	A	0	90	90	0	1234--	6842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3311   WEIGHTED AVERAGE DELAY = 22.9   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .89/D   WEIGHTED AVERAGE DELAY = 39.6   DELAY LOS = D-   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 69 - I-215 N/B OFF R @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	6911	1700	35	447	591	76	1.0	23.4	C	10	34	32	0	1-----	6911	EBL *
EBR	6912	-	-	10	13	76	1.0	23.4	C	-	34	32	0	1-----	6912	EBR
SBT	6920	1800	35	247	704	35	1.0	7.0	B	5	56	54	34	-2----	6920	SBT
SBR	6922	-	-	132	376	35	1.0	7.0	B	-	56	54	34	-2----	6922	SBR
* NBT	6940	1800	35	523	700	75	1.0	12.1	B	14	56	54	34	-2----	6940	NBT *
NBL	6941	-	-	284	380	75	1.0	12.1	B	-	56	54	34	-2----	6941	NBL

INTERSECTION SUMMARY :   TOTAL FLOW = 1643   WEIGHTED AVERAGE DELAY = 14.1   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .75/C   WEIGHTED AVERAGE DELAY = 16.2   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 70 - WASHINGTON ST E @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	7010	3600	35	474	1200	40	1.0	17.7	C	4	32	30	9	-2----	7010	EBT
EBR	7012	1800	35	519	1800	29	1.0	.0	A	0	90	90	0	123---	7012	EBR
* WBT	7030	3600	35	1254	1560	80	1.0	19.3	C	13	41	39	0	12----	7030	WBT *
* WBL	7031	1700	35	113	132	85	1.0	58.3	E-	3	9	7	0	1-----	7031	WBL *
* NBL	7041	1700	35	763	888	86	1.0	20.6	C	17	49	47	41	--3---	7041	NBL *
NBR	7042	1800	35	397	940	42	1.0	10.3	B	6	49	47	41	--3---	7042	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 3520   WEIGHTED AVERAGE DELAY = 16.7   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .84/D   WEIGHTED AVERAGE DELAY = 21.8   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 71 - WASHINGTON STRE @ BLUFF ROAD   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
EBT	7110	5400	35	791	3507	23	1.0	3.9	A	2	64	62	6	-2----	7110	EBT
EBL	7111	1700	35	23	76	30	1.0	32.4	D	1	6	4	0	1-----	7111	EBL
EBR	7112	-	-	48	213	23	1.0	3.9	A	-	64	62	6	-2----	7112	EBR
* SBT	7120	1800	35	10	22	45	1.0	34.7	D	1	6	4	70	--3---	7120	SBT *
SBL	7121	-	-	14	31	45	1.0	34.7	D	-	6	4	70	--3---	7121	SBL
SBR	7122	-	-	12	27	45	1.0	34.7	D	-	6	4	70	--3---	7122	SBR
* WBT	7130	5400	35	1507	3695	41	1.0	4.7	A	5	64	62	6	-2----	7130	WBT *
* WBL	7131	1700	35	31	76	41	1.0	34.0	D	1	6	4	0	1-----	7131	WBL *
WBR	7132	-	-	10	25	41	1.0	4.7	A	-	64	62	6	-2----	7132	WBR
* NBT	7140	1800	35	10	24	42	1.0	28.0	D+	2	14	12	76	---4--	7140	NBT *
NBL	7141	-	-	90	216	42	1.0	28.0	D+	-	14	12	76	---4--	7141	NBL
NBR	7142	1800	35	40	240	17	1.0	26.3	D+	1	14	12	76	---4--	7142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2586   WEIGHTED AVERAGE DELAY = 6.7   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .41/A   WEIGHTED AVERAGE DELAY = 7.2   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 72 - WASHINGTON STRE @ MEADOW LANE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
EBT	7210	3600	35	637	2440	26	1.0	4.3	A	3	63	61	10	-2----	7210	EBT
* EBL	7211	1700	35	101	151	67	1.0	37.7	D-	2	10	8	0	1-----	7211	EBL *
EBR	7212	1800	35	24	1220	2	1.0	3.6	A	0	63	61	10	-2----	7212	EBR
* SBT	7220	1800	35	10	14	73	1.0	33.1	D	5	17	15	73	--3---	7220	SBT *
SBL	7221	-	-	43	59	73	1.0	33.1	D	-	17	15	73	--3---	7221	SBL
SBR	7222	-	-	165	227	73	1.0	33.1	D	-	17	15	73	--3---	7222	SBR
* WBT	7230	3600	35	1726	2426	71	1.0	7.6	B	13	63	61	10	-2----	7230	WBT *
WBL	7231	1700	35	52	151	34	1.0	29.9	D+	1	10	8	0	1-----	7231	WBL
WBR	7232	-	-	10	14	71	1.0	7.6	B	-	63	61	10	-2----	7232	WBR
NBT	7240	1800	35	10	22	45	1.0	26.5	D+	3	17	15	73	--3---	7240	NBT
NBL	7241	-	-	94	209	45	1.0	26.5	D+	-	17	15	73	--3---	7241	NBL
NBR	7242	-	-	31	69	45	1.0	26.5	D+	-	17	15	73	--3---	7242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2903   WEIGHTED AVERAGE DELAY = 11.1   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .71/C   WEIGHTED AVERAGE DELAY = 11.8   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

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INTERSECTION # 73 - WASHINGTON STRE @ COOLEY DR/BARTO   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	7310	3600	35	465	1120	42	1.0	18.8	C	4	30	28	25	-2----	7310	EBT	
	EBL	7311	1700	35	52	434	12	1.0	19.6	C	1	25	23	0	1-----	7311	EBL	
	EBR	7312	1800	35	10	1800	1	1.0	.0	A	0	90	90	0	1234--	7312	EBR	
	SBT	7320	3600	35	162	498	33	1.0	18.2	C	3	30	28	60	---4--	7320	SBT	
*	SBL	7321	1700	35	30	57	53	1.0	39.6	D-	1	5	3	55	--3---	7321	SBL	*
	SBR	7322	-	-	202	622	33	1.0	18.2	C	-	30	28	60	---4--	7322	SBR	
*	WBT	7330	5400	35	1312	1680	78	1.0	23.3	C	10	30	28	25	-2----	7330	WBT	*
*	WBL	7331	1700	35	325	434	75	1.0	28.5	D+	7	25	23	0	1-----	7331	WBL	*
	WBR	7332	1800	35	40	560	7	1.0	16.6	C	1	30	28	25	-2----	7332	WBR	
*	NBT	7340	3600	35	156	202	77	1.0	23.9	C	9	30	28	60	---4--	7340	NBT	*
	NBL	7341	1700	35	14	57	25	1.0	32.7	D	0	5	3	55	--3---	7341	NBL	
	NBR	7342	-	-	710	918	77	1.0	23.9	C	-	30	28	60	---4--	7342	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 3478   WEIGHTED AVERAGE DELAY = 22.8   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .76/C   WEIGHTED AVERAGE DELAY = 24.4   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 74 - WASHINGTON STRE @ MOHAVE DRIVE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	7410	3600	35	1005	2733	37	1.0	2.6	A	4	71	69	5	-2----	7410	EBT	
	EBL	7411	1700	35	10	57	18	1.0	32.3	D	0	5	3	0	1-----	7411	EBL	
	EBR	7412	-	-	10	27	37	1.0	2.6	A	-	71	69	5	-2----	7412	EBR	
	SBT	7420	1800	35	10	67	15	1.0	26.3	D+	1	14	12	76	--3---	7420	SBT	
	SBL	7421	-	-	16	107	15	1.0	26.3	D+	-	14	12	76	--3---	7421	SBL	
	SBR	7422	-	-	10	67	15	1.0	26.3	D+	-	14	12	76	--3---	7422	SBR	
*	WBT	7430	3600	35	1463	2736	53	1.0	3.3	A	7	71	69	5	-2----	7430	WBT	*
*	WBL	7431	1700	35	19	57	34	1.0	33.7	D	0	5	3	0	1-----	7431	WBL	*
	WBR	7432	-	-	13	24	53	1.0	3.3	A	-	71	69	5	-2----	7432	WBR	
*	NBT	7440	1800	35	10	18	55	1.0	29.8	D+	3	14	12	76	--3---	7440	NBT	*
	NBL	7441	-	-	121	222	55	1.0	29.8	D+	-	14	12	76	--3---	7441	NBL	
	NBR	7442	1800	35	78	240	33	1.0	27.2	D+	2	14	12	76	--3---	7442	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 2765   WEIGHTED AVERAGE DELAY = 5.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .53/A   WEIGHTED AVERAGE DELAY = 5.8   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 75 - WASHINGTON STRE @ RECHE CANYON RO   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	7510	3600	35	821	1480	55	1.0	15.8	C	7	39	37	19	-2----	7510	EBT
EBL	7511	1700	35	192	321	60	1.0	27.7	D+	4	19	17	0	1-----	7511	EBL
EBR	7512	1800	35	87	1800	5	1.0	.0	A	0	90	90	0	123---	7512	EBR
SBT	7520	3600	35	15	243	6	1.0	15.5	C	0	32	30	58	--3---	7520	SBT
SBL	7521	-	-	59	957	6	1.0	15.5	C	-	32	30	58	--3---	7521	SBL
SBR	7522	1800	35	38	1800	2	1.0	.0	A	0	90	90	0	123---	7522	SBR
* WBT	7530	3600	35	1027	1480	69	1.0	17.7	C	10	39	37	19	-2----	7530	WBT *
* WBL	7531	1700	35	216	321	67	1.0	29.7	D+	5	19	17	0	1-----	7531	WBL *
WBR	7532	1800	35	122	1800	7	1.0	.0	A	0	90	90	0	123---	7532	WBR
* NBT	7540	3600	35	445	640	70	1.0	21.1	C	9	32	30	58	--3---	7540	NBT *
NBL	7541	-	-	390	560	70	1.0	21.1	C	-	32	30	58	------	7541	NBL
NBR	7542	1800	35	816	1800	45	1.0	.1	A	0	90	90	0	12----	7542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4228   WEIGHTED AVERAGE DELAY = 14.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .69/B   WEIGHTED AVERAGE DELAY = 20.3   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 76 - REDLANDS BLVD @ HUNTS LANE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	7610	3600	35	31	1102	3	1.0	10.7	B	0	42	40	11	--3---	7610	EBT
EBL	7611	1700	35	46	57	81	1.0	71.2	F	1	5	3	0	1-----	7611	EBL
EBR	7612	-	-	14	498	3	1.0	10.7	B	-	42	40	11	--3---	7612	EBR
* SBT	7620	2650	35	240	232	103**	1.0	82.4	F	5	12	10	53	---4--	7620	SBT *
SBL	7621	2650	35	149	294	51	1.0	29.9	D+	1	12	10	53	---4--	7621	SBL
SBR	7622	-	-	64	62	103**	1.0	82.4	F	-	12	10	53	---4--	7622	SBR
WBT	7630	1800	35	142	920	15	1.0	8.9	B	2	48	46	5	-23---	7630	WBT
* WBL	7631	1700	35	158	170	93**	1.0	66.6	F	4	11	9	0	12----	7631	WBL *
* WBR	7632	1800	35	957	920	104**	1.0	53.0	E	34	48	46	5	-23---	7632	WBR *
* NBT	7640	3600	35	843	828	102**	1.0	54.5	E	23	25	23	65	----5-	7640	NBT *
NBL	7641	1700	35	19	434	4	1.0	19.2	C	0	25	23	65	----5-	7641	NBL
NBR	7642	-	-	94	92	102**	1.0	54.5	E	-	25	23	65	----5-	7642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2757   WEIGHTED AVERAGE DELAY = 53.4   DELAY LOS = E   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.02/F   WEIGHTED AVERAGE DELAY = 58.3   DELAY LOS = E-   SYSTEM (BG) OFFSET = 86

<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 77 - COOLEY LANE @ HUNTS LANE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBL	7711	1700	35	316	529	60	1.0	21.4	C	7	30	28	0	1-----	7711	EBL	*
	EBR	7712	1800	35	59	560	11	1.0	16.8	C	1	30	28	0	1-----	7712	EBR	
	SBT	7720	1800	35	59	1160	5	1.0	4.5	A	1	60	58	30	-2----	7720	SBT	
	SBR	7722	1800	35	375	1160	32	1.0	5.5	B	4	60	58	30	-2----	7722	SBR	
*	NBT	7740	1800	35	698	1160	60	1.0	7.8	B	10	60	58	30	-2----	7740	NBT	*
	NBL	7741	1400	35	40	902	4	1.0	4.5	A	0	60	58	30	-2----	7741	NBL	

INTERSECTION SUMMARY : TOTAL FLOW = 1547 WEIGHTED AVERAGE DELAY = 10.1 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .60/B WEIGHTED AVERAGE DELAY = 12.0 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 78 - WASHINGTON STRE @ HUNTS LANE C.E. UPDATE YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	7810	1800	35	1657	1660	100**	1.0	20.5	C	40	85	83	0	12----	7810	EBT	
*	EBL	7811	1700	35	618	529	117**	1.0	128.0	F	26	30	28	0	1-----	7811	EBL	*
*	SBL	7821	1700	35	59	57	104**	1.0	145.4	F	3	5	3	85	--3---	7821	SBL	*
	SBR	7822	1800	35	53	1800	3	1.0	.0	A	0	90	90	0	123---	7822	SBR	
*	WBT	7830	1800	35	1243	1060	117**	1.0	114.8	F	62	55	53	30	-2----	7830	WBT	*
	WBR	7832	1800	35	122	1800	7	1.0	.0	A	0	90	90	0	123---	7832	WBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3752 WEIGHTED AVERAGE DELAY = 70.5 DELAY LOS = F CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.17/F WEIGHTED AVERAGE DELAY = 120.0 DELAY LOS = F SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

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INTERSECTION # 79 - WASHINGTON STRE @ WEIR ROAD   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	7910	3600	35	1660	3240	51	1.0	.8	A	4	83	81	0	12----	7910	EBT	*
	EBL	7911	1700	35	55	113	49	1.0	33.5	D	1	8	6	0	1-----	7911	EBL	
	SBL	7921	1700	35	29	94	31	1.0	31.7	D	1	7	5	83	--3---	7921	SBL	
*	SBR	7922	1800	35	48	100	48	1.0	34.2	D	1	7	5	83	--3---	7922	SBR	*
	WBT	7930	3600	35	1317	2920	45	1.0	2.0	A	4	75	73	8	-2----	7930	WBT	
	WBR	7932	1800	35	12	1460	1	1.0	1.2	A	0	75	73	8	-2----	7932	WBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3121   WEIGHTED AVERAGE DELAY = 2.7   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .51/A   WEIGHTED AVERAGE DELAY = 1.7   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 80 - WASHINGTON STRE @ WATERMAN AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	8010	3600	35	1164	2340	50	1.0	6.2	B	7	61	59	0	12----	8010	EBT	
*	EBL	8011	1700	35	764	642	119**	1.0	136.5	F	31	36	34	0	1-----	8011	EBL	*
	EBR	8012	-	-	10	20	50	1.0	6.2	B	-	61	59	0	12----	8012	EBR	
	SBT	8020	1800	35	10	540	2	1.0	16.9	C	0	29	27	61	--3---	8020	SBT	
*	SBL	8021	1700	35	627	510	123**	1.0	169.2	F	31	29	27	61	--3---	8021	SBL	*
	SBR	8022	1800	35	219	1260	17	1.0	3.5	A	2	65	63	0	1-3---	8022	SBR	
*	WBT	8030	3600	35	1119	920	122**	1.0	153.1	F	18	25	23	36	-2----	8030	WBT	*
	WBL	8031	1700	35	10	434	2	1.0	19.1	C	0	25	23	36	-2----	8031	WBL	
	WBR	8032	1800	35	397	460	86	1.0	35.7	D-	9	25	23	36	-2----	8032	WBR	
	NBT	8040	1800	35	10	180	6	1.0	17.1	C	1	29	27	61	--3---	8040	NBT	
	NBL	8041	-	-	10	180	6	1.0	17.1	C	-	29	27	61	--3---	8041	NBL	
	NBR	8042	-	-	10	180	6	1.0	17.1	C	-	29	27	61	--3---	8042	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 4350   WEIGHTED AVERAGE DELAY = 93.0   DELAY LOS = F   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.21/F   WEIGHTED AVERAGE DELAY = 152.1   DELAY LOS = F   SYSTEM (BG) OFFSET = 86

<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 81 - WASHINGTON STRE @ I215 N/B ON RAM   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	8110	5400	35	542	5400	10	1.0	.0	A	0	90	90	0	12----	8110	EBT	
*	EBL	8111	1700	35	82	586	14	1.0	15.5	C	1	33	31	0	1-----	8111	EBL	*
*	WBT	8130	5400	35	796	2209	36	1.0	6.7	B	4	57	55	33	-2----	8130	WBT	*
	WBR	8132	-	-	393	1091	36	1.0	6.7	B	-	57	55	33	-2----	8132	WBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 1813   WEIGHTED AVERAGE DELAY = 5.1   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .28/A   WEIGHTED AVERAGE DELAY = 7.3   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 82 - OLIVE STREET   @ MERIDIAN AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	8210	1800	35	111	308	36	1.0	20.6	C	3	26	24	0	1-----	8210	EBT	
	EBL	8211	-	-	23	64	36	1.0	20.6	C	-	26	24	0	1-----	8211	EBL	
	EBR	8212	-	-	39	108	36	1.0	20.6	C	-	26	24	0	1-----	8212	EBR	
*	SBT	8220	1800	35	281	643	44	1.0	4.9	A	6	64	62	26	-2----	8220	SBT	*
	SBL	8221	-	-	23	53	44	1.0	4.9	A	-	64	62	26	-2----	8221	SBL	
	SBR	8222	-	-	238	545	44	1.0	4.9	A	-	64	62	26	-2----	8222	SBR	
*	WBT	8230	1800	35	190	434	44	1.0	21.3	C	4	26	24	0	1-----	8230	WBT	*
	WBL	8231	-	-	10	23	44	1.0	21.3	C	-	26	24	0	1-----	8231	WBL	
	WBR	8232	-	-	10	23	44	1.0	21.3	C	-	26	24	0	1-----	8232	WBR	
	NBT	8240	1800	35	26	419	6	1.0	3.5	A	1	64	62	26	-2----	8240	NBT	
	NBL	8241	-	-	41	660	6	1.0	3.5	A	-	64	62	26	-2----	8241	NBL	
	NBR	8242	-	-	10	161	6	1.0	3.5	A	-	64	62	26	-2----	8242	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 1002   WEIGHTED AVERAGE DELAY = 11.0   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .44/A   WEIGHTED AVERAGE DELAY = 9.5   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 83 - VALLEY BOULEVRA @ MERIDIAN AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	8310	3600	35	1163	2360	49	1.0	6.2	B	7	61	59	0	1-----	8310	EBT	
	EBL	8311	1700	35	10	1114	1	1.0	4.1	A	0	61	59	0	1-----	8311	EBL	
*	SBL	8321	1700	35	235	406	58	1.0	21.6	C	6	29	27	61	-2----	8321	SBL	*
	SBR	8322	-	-	60	104	58	1.0	21.6	C	-	29	27	61	-2----	8322	SBR	
*	WBT	8330	3600	35	959	1669	57	1.0	6.8	B	9	61	59	0	1-----	8330	WBT	*
	WBR	8332	-	-	397	691	57	1.0	6.8	B	-	61	59	0	1-----	8332	WBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 2824   WEIGHTED AVERAGE DELAY = 8.1   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .58/A   WEIGHTED AVERAGE DELAY = 9.5   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 84 - AGUA MANSA ROAD @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	8410	1800	35	82	182	45	1.0	20.4	C	5	28	26	0	1-----	8410	EBT	*
	EBL	8411	-	-	104	231	45	1.0	20.4	C	-	28	26	0	1-----	8411	EBL	
	EBR	8412	-	-	48	107	45	1.0	20.4	C	-	28	26	0	1-----	8412	EBR	
*	SBT	8420	3600	35	828	1868	44	1.0	5.5	B	6	62	60	28	-2----	8420	SBT	*
	SBL	8421	1400	35	10	933	1	1.0	3.8	A	0	62	60	28	-2----	8421	SBL	
	SBR	8422	-	-	236	532	44	1.0	5.5	B	-	62	60	28	-2----	8422	SBR	
	WBT	8430	1800	35	114	442	26	1.0	18.8	C	3	28	26	0	1-----	8430	WBT	
	WBL	8431	-	-	10	39	26	1.0	18.8	C	-	28	26	0	1-----	8431	WBL	
	WBR	8432	-	-	10	39	26	1.0	18.8	C	-	28	26	0	1-----	8432	WBR	
	NBT	8440	3600	35	530	2356	23	1.0	4.5	A	2	62	60	28	-2----	8440	NBT	
	NBL	8441	1300	35	87	867	10	1.0	4.1	A	1	62	60	28	-2----	8441	NBL	
	NBR	8442	-	-	10	44	23	1.0	4.5	A	-	62	60	28	-2----	8442	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 2069   WEIGHTED AVERAGE DELAY = 7.7   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .45/A   WEIGHTED AVERAGE DELAY = 8.2   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 85 - SLOVER AVENUE @ PEPPER AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	8511	1700	35	703	913	77	1.0	15.2	C	14	51	49	0	1-----	8511	EBL *
EBR	8512	-	-	10	13	77	1.0	15.2	C	-	51	49	0	1-----	8512	EBR
* SBT	8520	1800	35	10	13	77	1.0	21.2	C	12	39	37	51	-2----	8520	SBT *
SBR	8522	-	-	563	727	77	1.0	21.2	C	-	39	37	51	-2----	8522	SBR
NBT	8540	1800	35	10	370	3	1.0	12.0	B	0	39	37	51	-2----	8540	NBT
NBL	8541	-	-	10	370	3	1.0	12.0	B	-	39	37	51	-2----	8541	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 1306   WEIGHTED AVERAGE DELAY = 17.8   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .77/C   WEIGHTED AVERAGE DELAY = 17.9   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 86 - AGUA MANSA ROAD @ RIVERSIDE AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   AM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	8610	1800	35	176	214	82	1.0	29.5	D+	10	29	27	0	1-----	8610	EBT *
EBL	8611	-	-	235	286	82	1.0	29.5	D+	-	29	27	0	1-----	8611	EBL
EBR	8612	-	-	33	40	82	1.0	29.5	D+	-	29	27	0	1-----	8612	EBR
* SBT	8620	3600	35	1749	2146	81	1.0	10.5	B	17	61	59	29	-2----	8620	SBT *
SBL	8621	1400	35	12	918	1	1.0	4.1	A	0	61	59	29	-2----	8621	SBL
SBR	8622	-	-	174	214	81	1.0	10.5	B	-	61	59	29	-2----	8622	SBR
WBT	8630	1800	35	207	256	81	1.0	28.7	D+	10	29	27	0	1-----	8630	WBT
WBL	8631	-	-	135	167	81	1.0	28.7	D+	-	29	27	0	1-----	8631	WBL
WBR	8632	-	-	95	117	81	1.0	28.7	D+	-	29	27	0	1-----	8632	WBR
NBT	8640	3600	35	1767	2300	77	1.0	9.4	B	15	61	59	29	-2----	8640	NBT
NBL	8641	1400	35	27	918	3	1.0	4.2	A	0	61	59	29	-2----	8641	NBL
NBR	8642	-	-	46	60	77	1.0	9.4	B	-	61	59	29	-2----	8642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4656   WEIGHTED AVERAGE DELAY = 13.5   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .82/D   WEIGHTED AVERAGE DELAY = 14.1   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

Without Project - P.M. Peak Hour

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 1 - RANDALL AVENUE @ PEPPER AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	111	1700	35	10	17	60	1.0	35.8	D-	2	9	7	0	1-----	111	EBL *
EBR	112	-	-	69	115	60	1.0	35.8	D-	-	9	7	0	1-----	112	EBR
SBT	120	1800	35	778	1580	49	1.0	1.1	A	4	81	79	9	-2----	120	SBT
SBR	122	1800	35	18	1580	1	1.0	.5	A	0	81	79	9	-2----	122	SBR
* NBT	140	1800	35	962	1580	61	1.0	1.6	A	6	81	79	9	-2----	140	NBT *
NBL	141	1000	35	372	878	42	1.0	1.0	A	2	81	79	9	-2----	141	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 2209 WEIGHTED AVERAGE DELAY = 2.6 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .61/B WEIGHTED AVERAGE DELAY = 4.2 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 2 - SAN BERNADINO A @ PEPPER AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	210	1800	35	359	424	85	1.0	31.2	D	10	29	27	0	1-----	210	EBT
EBL	211	-	-	98	116	85	1.0	31.2	D	-	29	27	0	1-----	211	EBL
EBR	212	1800	35	90	540	17	1.0	17.7	C	2	29	27	0	1-----	212	EBR
SBT	220	3600	35	808	1688	48	1.0	10.6	B	7	49	47	41	---4--	220	SBT
SBL	221	1700	35	107	94	113**	1.0	166.8	F	4	7	5	29	-2----	221	SBL
SBR	222	-	-	92	192	48	1.0	10.6	B	-	49	47	41	---4--	222	SBR
* WBT	230	1800	35	398	316	126**	1.0	192.2	F	29	29	27	0	1-----	230	WBT *
WBL	231	-	-	50	40	126**	1.0	192.2	F	-	29	27	0	1-----	231	WBL
WBR	232	-	-	233	185	126**	1.0	192.2	F	-	29	27	0	1-----	232	WBR
* NBT	240	1800	35	1145	920	124**	1.0	166.3	F	65	54	52	36	--34--	240	NBT *
* NBL	241	1700	35	219	189	116**	1.0	152.9	F	8	12	10	29	-23---	241	NBL *
NBR	242	-	-	149	120	124**	1.0	166.3	F	-	54	52	36	--34--	242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3748 WEIGHTED AVERAGE DELAY = 112.8 DELAY LOS = F CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.24/F WEIGHTED AVERAGE DELAY = 173.0 DELAY LOS = F SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

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INTERSECTION # 3 - VALLEY BLVD @ WILDROSE AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	310	3600	35	831	2840	29	1.0	2.0	A	3	73	71	0	12----	310	EBT	
*	EBL	311	3200	35	171	533	32	1.0	25.2	D+	2	17	15	0	1-----	311	EBL	*
*	SBL	321	3200	35	172	533	32	1.0	25.3	D+	2	17	15	73	--3---	321	SBL	*
	SBR	322	1800	35	90	300	30	1.0	25.2	D+	2	17	15	73	--3---	322	SBR	
*	WBT	330	3600	35	723	2160	33	1.0	6.9	B	4	56	54	17	-2----	330	WBT	*
	WBR	332	1800	35	278	1080	26	1.0	6.5	B	3	56	54	17	-2----	332	WBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 2265   WEIGHTED AVERAGE DELAY = 8.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .33/A   WEIGHTED AVERAGE DELAY = 12.8   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 4 - VALLEY BLVD @ PEPPER AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	410	3600	35	732	570	128**	1.0	204.7	F	25	25	23	0	1-----	410	EBT	*
	EBL	411	1200	35	183	307	60	1.0	24.8	C	4	25	23	0	1-----	411	EBL	
	EBR	412	-	-	449	350	128**	1.0	204.7	F	-	25	23	0	1-----	412	EBR	
*	SBT	420	3600	35	1009	772	131**	1.0	225.2	F	21	24	22	25	-2----	420	SBT	*
	SBL	421	-	-	141	108	131**	1.0	225.2	F	-	24	22	25	-2----	421	SBL	
	SBR	422	1800	35	194	440	44	1.0	22.4	C	4	24	22	25	-2----	422	SBR	
	WBT	430	3600	35	634	636	100**	1.0	48.8	E	11	25	23	0	1-----	430	WBT	
	WBL	431	1000	35	305	256	119**	1.0	160.8	F	13	25	23	0	1-----	431	WBL	
	WBR	432	-	-	283	284	100**	1.0	48.8	E	-	25	23	0	1-----	432	WBR	
*	NBT	440	1800	35	1017	780	130**	1.0	220.6	F	51	41	39	49	--3---	440	NBT	*
	NBL	441	1700	35	481	737	65	1.0	16.9	C	9	41	39	49	--3---	441	NBL	
	NBR	442	1800	35	439	780	56	1.0	15.3	C	8	41	39	49	--3---	442	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 5867   WEIGHTED AVERAGE DELAY = 143.6   DELAY LOS = F   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = 1.30/F   WEIGHTED AVERAGE DELAY = 216.6   DELAY LOS = F   SYSTEM (BG) OFFSET = 86

<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

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INTERSECTION # 5 - I-10 W/B @ PEPPER AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	SBT	520	1800	35	1150	1240	93**	1.0	18.5	C	24	64	62	26	-2----	520	SBT	
	SBR	522	1800	35	345	1240	28	1.0	4.1	A	3	64	62	26	-2----	522	SBR	
	WBL	531	1700	35	57	453	13	1.0	19.1	C	1	26	24	0	1-----	531	WBL	
*	WBR	532	1800	35	580	480	121**	1.0	156.3	F	25	26	24	0	1-----	532	WBR	*
*	NBT	540	1800	35	1429	1176	122**	1.0	142.9	F	75	64	62	26	-2----	540	NBT	*
	NBL	541	-	-	78	64	122**	1.0	142.9	F	-	64	62	26	-2----	541	NBL	

INTERSECTION SUMMARY : TOTAL FLOW = 3639 WEIGHTED AVERAGE DELAY = 90.6 DELAY LOS = F CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.21/F WEIGHTED AVERAGE DELAY = 146.6 DELAY LOS = F SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

INTERSECTION # 6 - I-10 E/B @ PEPPER AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBL	611	2339	35	485	520	93**	1.0	44.3	E+	6	22	20	0	1-----	611	EBL	*
	EBR	612	1161	35	18	258	7	1.0	21.0	C	0	22	20	0	1-----	612	EBR	
*	SBT	620	1800	35	651	697	93**	1.0	17.2	C	26	68	66	22	-2----	620	SBT	*
	SBL	621	-	-	581	622	93**	1.0	17.2	C	-	68	66	22	-2----	621	SBL	
	NBT	640	1800	35	1023	1320	78	1.0	7.9	B	16	68	66	22	-2----	640	NBT	
	NBR	642	1800	35	312	1320	24	1.0	3.0	A	2	68	66	22	-2----	642	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3070 WEIGHTED AVERAGE DELAY = 17.0 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .93/E WEIGHTED AVERAGE DELAY = 24.9 DELAY LOS = C SYSTEM (BG) OFFSET = 86

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INTERSECTION # 7 - MILL STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

	APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH	
	(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)	
	EBT	710	1800	35	366	760	48	1.0	14.8	B	7	40	38	0	1-----	710	EBT	
	EBL	711	1300	35	71	549	13	1.0	12.1	B	1	40	38	0	1-----	711	EBL	
	EBR	712	1800	35	155	760	20	1.0	12.5	B	2	40	38	0	1-----	712	EBR	
	SBT	720	3600	35	859	1797	48	1.0	10.2	B	7	50	48	40	-2----	720	SBT	
	SBL	721	1100	35	207	587	35	1.0	9.4	B	3	50	48	40	-2----	721	SBL	
	SBR	722	-	-	59	123	48	1.0	10.2	B	-	50	48	40	-2----	722	SBR	
*	WBT	730	3600	35	487	872	56	1.0	15.4	C	8	40	38	0	1-----	730	WBT	*
	WBL	731	-	-	172	308	56	1.0	15.4	C		40	38	0	1-----	731	WBL	
	WBR	732	-	-	190	340	56	1.0	15.4	C	-	40	38	0	1-----	732	WBR	
*	NBT	740	3600	35	890	1624	55	1.0	10.8	B	8	50	48	40	-2----	740	NBT	*
	NBL	741	1200	35	130	640	20	1.0	8.4	B	2	50	48	40	-2----	741	NBL	
	NBR	742		-	162	296	55	1.0	10.8	B	-	50	48	40	-2----	742	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3748 WEIGHTED AVERAGE DELAY = 12.0 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .55/A WEIGHTED AVERAGE DELAY = 12.9 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 8 - JOHNSTON STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

	APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH	
	(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)	
	EBT	810	1800	35	13	34	38	1.0	22.9	C	3	22	20	0	1-----	810	EBT	
	EBL	811	-	-	115	303	38	1.0	22.9	C	-	22	20	0	1-----	811	EBL	
	EBR	812	-	-	24	63	38	1.0	22.9	C	-	22	20	0	1-----	812	EBR	
	SBT	820	3600	35	925	2109	44	1.0	3.7	A	5	68	66	22	-2----	820	SBT	
	SBL	821	-	-	77	176	44	1.0	3.7	A	-	68	66	22	-2----	821	SBL	
	SBR	822	-	-	156	356	44	1.0	3.7	A	-	68	66	22	-2----	822	SBR	
*	WBT	830	1800	35	18	41	44	1.0	23.5	C	4	22	20	0	1-----	830	WBT	*
	WBL	831	-	-	54	122	44	1.0	23.5	C	-	22	20	0	1-----	831	WBL	
	WBR	832	-	-	105	237	44	1.0	23.5	C	-	22	20	0	1-----	832	WBR	
*	NBT	840	3600	35	1070	2435	44	1.0	3.7	A	5	68	66	22	-2----	840	NBT	*
	NBL	841	-	-	27	61	44	1.0	3.7	A	-	68	66	22	-2----	841	NBL	
	NBR	842	-	-	63	143	44	1.0	3.7	A	-	68	66	22	-2----	842	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2647 WEIGHTED AVERAGE DELAY = 6.1 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .44/A WEIGHTED AVERAGE DELAY = 6.3 DELAY LOS = B SYSTEM (BG) OFFSET = 86

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INTERSECTION # 9 - CITRUS STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	910	1800	35	16	60	27	1.0	25.6	D+	2	16	14	0	1-----	910	EBT
EBL	911	-	-	59	220	27	1.0	25.6	D+	-	16	14	0	1-----	911	EBL
* EBR	912	1800	35	132	280	47	1.0	27.3	D+	3	16	14	0	1-----	912	EBR *
SBT	920	3600	35	922	2688	34	1.0	1.9	A	3	74	72	16	-2----	920	SBT
SBL	921	-	-	14	41	34	1.0	1.9	A	-	74	72	16	-2----	921	SBL
SBR	922	-	-	52	152	34	1.0	1.9	A	-	74	72	16	-2----	922	SBR
WBT	930	1800	35	31	80	39	1.0	26.4	D+	2	16	14	0	1-----	930	WBT
WBL	931	-	-	56	145	39	1.0	26.4	D+	-	16	14	0	1-----	931	WBL
WBR	932	-	-	21	54	39	1.0	26.4	D+	-	16	14	0	1-----	932	WBR
* NBT	940	3600	35	1105	2255	49	1.0	2.4	A	5	74	72	16	-2----	940	NBT *
NBL	941	-	-	222	453	49	1.0	2.4	A	-	74	72	16	-2----	941	NBL
NBR	942	-	-	84	171	49	1.0	2.4	A	-	74	72	16	-2----	942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2714   WEIGHTED AVERAGE DELAY = 5.0   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .49/A   WEIGHTED AVERAGE DELAY = 4.5   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 10 - LAUREL STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	1010	1800	35	19	38	50	1.0	28.4	D+	3	15	13	0	1-----	1010	EBT
EBL	1011	-	-	48	96	50	1.0	28.4	D+	-	15	13	0	1-----	1011	EBL
EBR	1012	-	-	63	126	50	1.0	28.4	D+	-	15	13	0	1-----	1012	EBR
SBT	1020	3600	35	999	2612	38	1.0	1.8	A	3	75	73	15	-2----	1020	SBT
SBL	1021	-	-	60	157	38	1.0	1.8	A	-	75	73	15	-2----	1021	SBL
SBR	1022	-	-	58	152	38	1.0	1.8	A	-	75	73	15	-2----	1022	SBR
* WBT	1030	1800	35	24	47	51	1.0	28.5	D+	3	15	13	0	1-----	1030	WBT *
WBL	1031	-	-	33	65	51	1.0	28.5	D+	-	15	13	0	1-----	1031	WBL
WBR	1032	-	-	75	148	51	1.0	28.5	D+	-	15	13	0	1-----	1032	WBR
* NBT	1040	3600	35	1348	2669	51	1.0	2.2	A	6	75	73	15	-2----	1040	NBT *
NBL	1041	-	-	97	192	51	1.0	2.2	A	-	75	73	15	-2----	1041	NBL
NBR	1042	-	-	30	59	51	1.0	2.2	A	-	75	73	15	-2----	1042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2854   WEIGHTED AVERAGE DELAY = 4.5   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .51/A   WEIGHTED AVERAGE DELAY = 4.4   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 11 - OLIVE STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	1110	1800	35	161	236	68	1.0	23.1	C	8	30	28	0	1-----	1110	EBT	*
	EBL	1111	-	-	109	160	68	1.0	23.1	C	-	30	28	0	1-----	1111	EBL	
	EBR	1112	-	-	112	164	68	1.0	23.1	C	-	30	28	0	1-----	1112	EBR	
	SBT	1120	3600	35	938	1961	48	1.0	6.4	B	7	60	58	30	-2----	1120	SBT	
	SBL	1121	-	-	71	148	48	1.0	6.4	B	-	60	58	30	-2----	1121	SBL	
	SBR	1122	-	-	101	211	48	1.0	6.4	B	-	60	58	30	-2----	1122	SBR	
	WBT	1130	1800	35	188	324	58	1.0	21.0	C	7	30	28	0	1-----	1130	WBT	
	WBL	1131	-	-	73	126	58	1.0	21.0	C	-	30	28	0	1-----	1131	WBL	
	WBR	1132	-	-	64	110	58	1.0	21.0	C	-	30	28	0	1-----	1132	WBR	
*	NBT	1140	3600	35	1346	1963	69	1.0	8.4	B	12	60	58	30	-2----	1140	NBT	*
	NBL	1141	-	-	165	241	69	1.0	8.4	B	-	60	58	30	-2----	1141	NBL	
	NBR	1142	-	-	80	117	69	1.0	8.4	B	-	60	58	30	-2----	1142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3408 WEIGHTED AVERAGE DELAY = 10.6 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .68/B WEIGHTED AVERAGE DELAY = 11.3 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 12 - "C" STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	1210	1800	35	114	221	52	1.0	25.6	D+	4	20	18	0	1-----	1210	EBT	
	EBL	1211	-	-	72	139	52	1.0	25.6	D+	-	20	18	0	1-----	1211	EBL	
	EBR	1212	1800	35	122	360	34	1.0	23.7	C	3	20	18	0	1-----	1212	EBR	
	SBT	1220	3600	35	952	2559	37	1.0	2.9	A	4	70	68	20	-2----	1220	SBT	
	SBL	1221	1300	35	69	982	7	1.0	2.2	A	0	70	68	20	-2----	1221	SBL	
	SBR	1222	-	-	60	161	37	1.0	2.9	A	-	70	68	20	-2----	1222	SBR	
*	WBT	1230	1800	35	146	244	60	1.0	26.9	D+	5	20	18	0	1-----	1230	WBT	*
	WBL	1231	-	-	69	116	60	1.0	26.9	D+	-	20	18	0	1-----	1231	WBL	
	WBR	1232	1800	35	111	360	31	1.0	23.5	C	2	20	18	0	1-----	1232	WBR	
*	NBT	1240	3600	35	1458	2507	58	1.0	3.9	A	8	70	68	20	-2----	1240	NBT	*
	NBL	1241	1100	35	219	831	26	1.0	2.6	A	2	70	68	20	-2----	1241	NBL	
	NBR	1242	-	-	124	213	58	1.0	3.9	A	-	70	68	20	-2----	1242	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3516 WEIGHTED AVERAGE DELAY = 7.4 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .58/A WEIGHTED AVERAGE DELAY = 6.7 DELAY LOS = B SYSTEM (BG) OFFSET = 86

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INTERSECTION # 13 - "E" STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
SBT	1320	3600	35	1040	2886	36	1.0	1.1	A	3	79	77	11	-2----	1320	SBT
SBL	1321	-	-	70	194	36	1.0	1.1	A	-	79	77	11	-2----	1321	SBL
WBL	1331	1700	35	21	170	12	1.0	28.1	D+	0	11	9	0	1-----	1331	WBL
* WBR	1332	1800	35	101	180	56	1.0	32.4	D	2	11	9	0	1-----	1332	WBR *
* NBT	1340	3600	35	1731	3043	57	1.0	1.6	A	6	79	77	11	-2----	1340	NBT *
NBR	1342	-	-	21	37	57	1.0	1.6	A	-	79	77	11	-2----	1342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2984 WEIGHTED AVERAGE DELAY = 2.6 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .57/A WEIGHTED AVERAGE DELAY = 3.3 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 14 - VALLEY BLVD @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	1410	3600	35	671	600	112**	1.0	92.5	F	24	27	25	0	1-----	1410	EBT *
EBL	1411	1300	35	83	361	23	1.0	19.1	C	2	27	25	0	1-----	1411	EBL
EBR	1412	-	-	447	400	112**	1.0	92.5	F	-	27	25	0	1-----	1412	EBR
SBT	1420	3600	35	867	1848	47	1.0	5.3	B	6	63	61	27	-2----	1420	SBT
SBL	1421	-	-	214	456	47	1.0	5.3	B	-	63	61	27	-2----	1421	SBL
SBR	1422	-	-	64	136	47	1.0	5.3	B	-	63	61	27	-2----	1422	SBR
WBT	1430	1800	35	551	500	110**	1.0	94.4	F	23	27	25	0	1-----	1430	WBT
WBL	1431	1200	35	188	333	56	1.0	22.9	C	4	27	25	0	1-----	1431	WBL
WBR	1432	1800	35	187	500	37	1.0	20.2	C	4	27	25	0	1-----	1432	WBR
* NBT	1440	3600	35	1665	1485	112**	1.0	76.1	F	68	63	61	27	-2----	1440	NBT *
NBL	1441	-	-	693	618	112**	1.0	76.1	F	-	63	61	27	-2----	1441	NBL
NBR	1442	-	-	377	336	112**	1.0	76.1	F	-	63	61	27	-2----	1442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 6007 WEIGHTED AVERAGE DELAY = 63.1 DELAY LOS = F CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.12/F WEIGHTED AVERAGE DELAY = 80.8 DELAY LOS = F SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

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INTERSECTION # 15 - I-10 W/B @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	SBT	1520	3600	35	1249	1080	116**	1.0	112.0	F	31	29	27	61	--3---	1520	SBT	*
	SBR	1522	1800	35	284	540	53	1.0	20.7	C	6	29	27	61	--3---	1522	SBR	
	WBL	1531	1700	35	284	907	31	1.0	9.0	B	4	50	48	0	1-----	1531	WBL	
*	WBR	1532	1800	35	1172	960	122**	1.0	149.8	F	42	50	48	0	1-----	1532	WBR	*
	NBT	1540	3600	35	1673	1520	110**	1.0	75.7	F	42	40	38	50	-23---	1540	NBT	
*	NBL	1541	1700	35	188	170	111**	1.0	128.0	F	6	11	9	50	-2----	1541	NBL	*

INTERSECTION SUMMARY : TOTAL FLOW = 4850 WEIGHTED AVERAGE DELAY = 97.9 DELAY LOS = F CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.19/F WEIGHTED AVERAGE DELAY = 130.1 DELAY LOS = F SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

INTERSECTION # 16 - I-10 E/B @ RANCHO AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBL	1611	1700	35	568	472	120**	1.0	152.6	F	24	27	25	0	1-----	1611	EBL	*
	EBR	1612	1800	35	327	500	65	1.0	24.1	C	7	27	25	0	1-----	1612	EBR	
	SBT	1620	3600	35	1084	2440	44	1.0	5.2	B	6	63	61	27	-23---	1620	SBT	
*	SBL	1621	1700	35	575	491	117**	1.0	131.3	F	20	28	26	27	-2----	1621	SBL	*
*	NBT	1640	3600	35	1269	1076	118**	1.0	122.5	F	39	35	33	55	--3---	1640	NBT	*
	NBR	1642	-	-	288	244	118**	1.0	122.5	F	-	35	33	55	--3---	1642	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 4111 WEIGHTED AVERAGE DELAY = 89.1 DELAY LOS = F CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.18/F WEIGHTED AVERAGE DELAY = 130.7 DELAY LOS = F SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 17 - MILL STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	1710	1800	35	589	960	61	1.0	8.7	B	10	58	56	14	-2----	1710	EBT
EBL	1711	1700	35	20	227	9	1.0	26.0	D+	0	14	12	0	1-----	1711	EBL
EBR	1712	-	-	98	160	61	1.0	8.7	B	-	58	56	14	-2----	1712	EBR
SBT	1720	1800	35	24	97	25	1.0	24.3	C	2	18	16	72	--3---	1720	SBT
SBL	1721	-	-	22	89	25	1.0	24.3	C	-	18	16	72	--3---	1721	SBL
SBR	1722	-	-	33	134	25	1 0	24.3	C	-	18	16	72	--3---	1722	SBR
* WBT	1730	1800	35	808	1076	75	1.0	11.3	B	15	58	56	14	-2----	1730	WBT *
* WBL	1731	1700	35	177	227	78	1.0	39.9	D-	4	14	12	0	1-----	1731	WBL *
WBR	1732	-	-	33	44	75	1.0	11.3	B	-	58	56	14	-2----	1732	WBR
NBT	1740	1800	35	38	68	56	1.0	27.5	D+	4	18	16	72	--3---	1740	NBT
* NBL	1741	1200	35	157	213	74	1.0	35.3	D-	4	18	16	72	--3---	1741	NBL *
NBR	1742	-	-	142	252	56	1.0	27.5	D+	-	18	16	72	--3---	1742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2141   WEIGHTED AVERAGE DELAY = 16.6   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .75/C   WEIGHTED AVERAGE DELAY = 18.8   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 18 - JOHNSTON STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	1810	1800	35	22	77	28	1.0	21.1	C	2	24	22	0	1-----	1810	EBT *
EBL	1811	-	-	55	194	28	1.0	21.1	C	-	24	22	0	1-----	1811	EBL
EBR	1812	-	-	48	169	28	1.0	21.1	C	-	24	22	0	1-----	1812	EBR
SBT	1820	1800	35	172	821	21	1.0	3.4	A	2	66	64	24	-2----	1820	SBT
SBL	1821	-	-	32	153	21	1.0	3.4	A	-	66	64	24	-2----	1821	SBL
SBR	1822	-	-	64	306	21	1.0	3.4	A	-	66	64	24	-2----	1822	SBR
WBT	1830	1800	35	24	160	15	1.0	20.3	C	1	24	22	0	1-----	1830	WBT
WBL	1831	-	-	10	67	15	1.0	20.3	C	-	24	22	0	1-----	1831	WBL
WBR	1832	-	-	32	213	15	1.0	20.3	C	-	24	22	0	1-----	1832	WBR
* NBT	1840	1800	35	299	1063	28	1.0	3.6	A	3	66	64	24	-2----	1840	NBT *
NBL	1841	-	-	51	181	28	1.0	3.6	A	-	66	64	24	-2----	1841	NBL
NBR	1842	-	-	10	36	28	1.0	3.6	A	-	66	64	24	-2----	1842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 819   WEIGHTED AVERAGE DELAY = 7.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .28/A   WEIGHTED AVERAGE DELAY = 8.1   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 19 - CITRUS STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	1910	1800	35	11	126	9	1.0	26.0	D+	0	14	12	0	1-----	1910	EBT
EBL	1911	-	-	10	114	9	1.0	26.0	D+	-	14	12	0	1-----	1911	EBL
EBR	1912	1800	35	58	240	24	1.0	26.7	D+	1	14	12	0	1-----	1912	EBR
SBT	1920	1800	35	210	1300	16	1.0	1.3	A	1	76	74	14	-2----	1920	SBT
SBL	1921	-	-	10	62	16	1.0	1.3	A	-	76	74	14	-2----	1921	SBL
SBR	1922	-	-	19	118	16	1.0	1.3	A	-	76	74	14	-2----	1922	SBR
* WBT	1930	1800	35	34	120	28	1.0	26.9	D+	2	14	12	0	1-----	1930	WBT *
WBL	1931	-	-	17	60	28	1.0	26.9	D+	-	14	12	0	1-----	1931	WBL
WBR	1932	-	-	17	60	28	1.0	26.9	D+	-	14	12	0	1-----	1932	WBR
* NBT	1940	1800	35	323	1117	29	1.0	1.5	A	2	76	74	14	-2----	1940	NBT *
NBL	1941	-	-	95	329	29	1.0	1.5	A	-	76	74	14	-2----	1941	NBL
NBR	1942	-	-	10	35	29	1.0	1.5	A	-	76	74	14	-2----	1942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 814   WEIGHTED AVERAGE DELAY = 6.0   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .29/A   WEIGHTED AVERAGE DELAY = 4.9   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 20 - LAUREL STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	2010	1800	35	68	458	15	1.0	13.6	B	2	37	35	0	1-----	2010	EBT
EBL	2011	-	-	19	128	15	1.0	13.6	B	-	37	35	0	1-----	2011	EBL
EBR	2012	-	-	17	114	15	1.0	13.6	B	-	37	35	0	1-----	2012	EBR
SBT	2020	1800	35	192	710	27	1.0	7.7	B	3	53	51	37	-2----	2020	SBT
SBL	2021	-	-	58	214	27	1.0	7.7	B	-	53	51	37	-2----	2021	SBL
SBR	2022	-	-	26	96	27	1.0	7.7	B	-	53	51	37	-2----	2022	SBR
* WBT	2030	1800	35	103	281	37	1.0	15.1	C	4	37	35	0	1-----	2030	WBT *
WBL	2031	-	-	48	131	37	1.0	15.1	C	-	37	35	0	1-----	2031	WBL
WBR	2032	-	-	106	289	37	1.0	15.1	C	-	37	35	0	1-----	2032	WBR
* NBT	2040	1800	35	318	884	36	1.0	8.2	B	5	53	51	37	-2----	2040	NBT *
NBL	2041	-	-	20	56	36	1.0	8.2	B	-	53	51	37	-2----	2041	NBL
NBR	2042	-	-	29	81	36	1.0	8.2	B	-	53	51	37	-2----	2042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1004   WEIGHTED AVERAGE DELAY = 10.4   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .36/A   WEIGHTED AVERAGE DELAY = 11.0   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 21 - OLIVE STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	2110	1800	35	138	313	44	1.0	13.4	B	6	42	40	0	1-----	2110	EBT	*
	EBL	2111	-	-	187	424	44	1.0	13.4	B	-	42	40	0	1-----	2111	EBL	
	EBR	2112	-	-	28	63	44	1.0	13.4	B	-	42	40	0	1-----	2112	EBR	
	SBT	2120	1800	35	214	784	27	1.0	9.6	B	4	48	46	42	-2----	2120	SBT	
	SBL	2121	-	-	15	55	27	1.0	9.6	B	-	48	46	42	-2----	2121	SBL	
	SBR	2122	-	-	22	81	27	1.0	9.6	B	-	48	46	42	-2----	2122	SBR	
	WBT	2130	1800	35	186	702	26	1.0	12.0	B	3	42	40	0	1-----	2130	WBT	
	WBL	2131	-	-	10	38	26	1.0	12.0	B	-	42	40	0	1-----	2131	WBL	
	WBR	2132	-	-	16	60	26	1.0	12.0	B	-	42	40	0	1-----	2132	WBR	
*	NBT	2140	1800	35	341	786	43	1.0	10.8	B	6	48	46	42	-2----	2140	NBT	*
	NBL	2141	-	-	45	104	43	1.0	10.8	B	-	48	46	42	-2----	2141	NBL	
	NBR	2142	-	-	13	30	43	1.0	10.8	B	-	48	46	42	-2----	2142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1215   WEIGHTED AVERAGE DELAY = 11.5   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .44/A   WEIGHTED AVERAGE DELAY = 12.0   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 22 - "C" STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	2210	1800	35	209	689	30	1.0	10.6	B	4	46	44	0	1-----	2210	EBT	
	EBL	2211	-	-	34	112	30	1.0	10.6	B	-	46	44	0	1-----	2211	EBL	
	EBR	2212	-	-	24	79	30	1.0	10.6	B	-	46	44	0	1-----	2212	EBR	
	SBT	2220	1800	35	145	443	33	1.0	11.6	B	4	44	42	46	-2----	2220	SBT	
	SBL	2221	-	-	111	339	33	1.0	11.6	B	-	44	42	46	-2----	2221	SBL	
	SBR	2222	-	-	19	58	33	1.0	11.6	B	-	44	42	46	-2----	2222	SBR	
*	WBT	2230	1800	35	341	664	51	1.0	12.4	B	8	46	44	0	1-----	2230	WBT	*
	WBL	2231	-	-	111	216	51	1.0	12.4	B	-	46	44	0	1-----	2231	WBL	
	WBR	2232	1800	35	157	880	18	1.0	9.8	B	2	46	44	0	1-----	2232	WBR	
*	NBT	2240	1800	35	228	441	52	1.0	13.3	B	8	44	42	46	-2----	2240	NBT	*
	NBL	2241	-	-	50	97	52	1.0	13.3	B	-	44	42	46	-2----	2241	NBL	
	NBR	2242	-	-	156	302	52	1.0	13.3	B	-	44	42	46	-2----	2242	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1585   WEIGHTED AVERAGE DELAY = 12.0   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .52/A   WEIGHTED AVERAGE DELAY = 12.9   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 23 - "E" STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	2310	1800	35	195	606	32	1.0	9.9	B	4	48	46	0	1-----	2310	EBT	
	EBL	2311	-	-	56	174	32	1.0	9.9	B	-	48	46	0	1-----	2311	EBL	
	EBR	2312	-	-	45	140	32	1.0	9.9	B	-	48	46	0	1-----	2312	EBR	
	SBT	2320	1800	35	181	389	47	1.0	13.7	B	7	42	40	48	-2----	2320	SBT	
	SBL	2321	-	-	109	234	47	1.0	13.7	B	-	42	40	48	-2----	2321	SBL	
	SBR	2322	-	-	82	176	47	1.0	13.7	B	-	42	40	48	-2----	2322	SBR	
*	WBT	2330	1800	35	303	560	54	1.0	11.9	B	8	48	46	0	1-----	2330	WBT	*
	WBL	2331	-	-	34	63	54	1.0	11.9	B	-	48	46	0	1-----	2331	WBL	
	WBR	2332	-	-	161	297	54	1.0	11.9	B	-	48	46	0	1-----	2332	WBR	
*	NBT	2340	1800	35	286	525	55	1.0	14.6	B	8	42	40	48	-2----	2340	NBT	*
	NBL	2341	-	-	45	83	55	1.0	14.6	B	-	42	40	48	-2----	2341	NBL	
	NBR	2342	-	-	105	193	55	1.0	14.6	B	-	42	40	48	-2----	2342	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1602 WEIGHTED AVERAGE DELAY = 12.7 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .54/A WEIGHTED AVERAGE DELAY = 13.2 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 24 - "H" STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	2410	1800	35	55	733	7	1.0	7.1	B	1	52	50	0	1-----	2410	EBT	
	EBL	2411	-	-	10	133	7	1.0	7.1	B	-	52	50	0	1-----	2411	EBL	
	EBR	2412	-	-	10	133	7	1.0	7.1	B	-	52	50	0	1-----	2412	EBR	
*	SBT	2420	1800	35	65	145	45	1.0	15.4	C	6	38	36	52	-2----	2420	SBT	*
	SBL	2421	-	-	248	553	45	1.0	15.4	C	-	38	36	52	-2----	2421	SBL	
	SBR	2422	-	-	10	22	45	1.0	15.4	C	-	38	36	52	-2----	2422	SBR	
*	WBT	2430	1800	35	101	230	44	1.0	9.2	B	6	52	50	0	1-----	2430	WBT	*
	WBL	2431	-	-	50	114	44	1.0	9.2	B	-	52	50	0	1-----	2431	WBL	
	WBR	2432	-	-	288	656	44	1.0	9.2	B	-	52	50	0	1-----	2432	WBR	
	NBT	2440	1800	35	181	437	41	1.0	15.0	C	5	38	36	52	-2----	2440	NBT	
	NBL	2441	-	-	13	31	41	1.0	15.0	C	-	38	36	52	-2----	2441	NBL	
	NBR	2442	-	-	104	251	41	1.0	15.0	C	-	38	36	52	-2----	2442	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1135 WEIGHTED AVERAGE DELAY = 12.3 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .44/A WEIGHTED AVERAGE DELAY = 11.8 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 25 - VALLEY BLVD @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	2510	3600	35	776	2248	35	1.0	5.9	B	4	59	57	0	1-----	2510	EBT	
	EBL	2511	1200	35	197	760	26	1.0	5.6	B	2	59	57	0	1-----	2511	EBL	
	EBR	2512	-	-	11	32	35	1.0	5.9	B	-	59	57	0	1-----	2512	EBR	
*	SBT	2520	1800	35	10	26	39	1.0	18.2	C	4	31	29	59	-2----	2520	SBT	*
	SBL	2521	-	-	99	255	39	1.0	18.2	C	-	31	29	59	-2----	2521	SBL	
	SBR	2522	-	-	116	299	39	1.0	18.2	C	-	31	29	59	-2----	2522	SBR	
*	WBT	2530	3600	35	790	2051	39	1.0	6.2	B	5	59	57	0	1-----	2530	WBT	*
	WBL	2531	1300	35	91	823	11	1.0	5.0	A	1	59	57	0	1-----	2531	WBL	
	WBR	2532	-	-	88	229	39	1.0	6.2	B	-	59	57	0	1-----	2532	WBR	
	NBT	2540	1800	35	10	71	14	1.0	16.5	C	1	31	29	59	-2----	2540	NBT	
	NBL	2541	-	-	14	99	14	1.0	16.5	C	-	31	29	59	-2----	2541	NBL	
	NBR	2542	-	-	58	410	14	1.0	16.5	C	-	31	29	59	-2----	2542	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 2260   WEIGHTED AVERAGE DELAY = 7.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .39/A   WEIGHTED AVERAGE DELAY = 8.6   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 26 - LAUREL STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/20/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	2610	1800	35	77	316	24	1.0	15.1	C	3	35	33	0	1-----	2610	EBT	*
	EBL	2611	-	-	84	344	24	1.0	15.1	C	-	35	33	0	1-----	2611	EBL	
	EBR	2612	1800	35	10	660	2	1.0	13.8	B	0	35	33	0	1-----	2612	EBR	
	SBT	2620	3600	35	508	2120	24	1.0	6.8	B	3	55	53	35	-2----	2620	SBT	
	SBL	2621	1400	35	10	824	1	1.0	5.8	B	0	55	53	35	-2----	2621	SBL	
	SBR	2622	1800	35	82	1060	8	1.0	6.1	B	1	55	53	35	-2----	2622	SBR	
	WBT	2630	1800	35	68	528	13	1.0	14.4	B	1	35	33	0	1-----	2630	WBT	
	WBL	2631	-	-	17	132	13	1.0	14.4	B	-	35	33	0	1-----	2631	WBL	
	WBR	2632	1800	35	19	660	3	1.0	13.9	B	0	35	33	0	1-----	2632	WBR	
*	NBT	2640	3600	35	474	1974	24	1.0	6.8	B	3	55	53	35	-2----	2640	NBT	*
	NBL	2641	1400	35	37	824	4	1.0	6.0	B	0	55	53	35	-2----	2641	NBL	
	NBR	2642	-	-	35	146	24	1.0	6.8	B	-	55	53	35	-2----	2642	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 1421   WEIGHTED AVERAGE DELAY = 8.3   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .24/A   WEIGHTED AVERAGE DELAY = 8.8   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 27 - OLIVE STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2710	1800	35	71	178	40	1.0	20.9	C	4	26	24	0	1-----	2710	EBT *
EBL	2711	-	-	111	278	40	1.0	20.9	C	-	26	24	0	1-----	2711	EBL
EBR	2712	-	-	10	25	40	1.0	20.9	C	-	26	24	0	1-----	2712	EBR
SBT	2720	1800	35	417	1240	34	1.0	4.4	A	4	64	62	26	-2----	2720	SBT
SBL	2721	1400	35	10	964	1	1.0	3.3	A	0	64	62	26	-2----	2721	SBL
SBR	2722	1800	35	149	1240	12	1.0	3.6	A	1	64	62	26	-2----	2722	SBR
WBT	2730	1800	35	72	368	20	1.0	19.5	C	2	26	24	0	1-----	2730	WBT
WBL	2731	-	-	12	61	20	1.0	19.5	C	-	26	24	0	1-----	2731	WBL
WBR	2732	-	-	10	51	20	1.0	19.5	C	-	26	24	0	1-----	2732	WBR
* NBT	2740	1800	35	493	1240	40	1.0	4.7	A	5	64	62	26	-2----	2740	NBT *
NBL	2741	1400	35	10	964	1	1.0	3.3	A	0	64	62	26	-2----	2741	NBL
NBR	2742	1800	35	20	1240	2	1.0	3.4	A	0	64	62	26	-2----	2742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1385 WEIGHTED AVERAGE DELAY = 7.7 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .40/A WEIGHTED AVERAGE DELAY = 9.3 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 28 - "C" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2810	1800	35	173	312	55	1.0	13.4	B	8	45	43	0	1-----	2810	EBT *
EBL	2811	-	-	217	391	55	1.0	13.4	B	-	45	43	0	1-----	2811	EBL
EBR	2812	-	-	87	157	55	1.0	13.4	B	-	45	43	0	1-----	2812	EBR
SBT	2820	1800	35	274	606	45	1.0	12.2	B	6	45	43	45	-2----	2820	SBT
SBL	2821	1400	35	45	669	7	1.0	9.7	B	1	45	43	45	-2----	2821	SBL
SBR	2822	-	-	115	254	45	1.0	12.2	B	-	45	43	45	-2----	2822	SBR
WBT	2830	1800	35	87	499	17	1.0	10.2	B	2	45	43	0	1-----	2830	WBT
WBL	2831	-	-	50	287	17	1.0	10.2	B	-	45	43	0	1-----	2831	WBL
WBR	2832	-	-	13	75	17	1.0	10.2	B	-	45	43	0	1-----	2832	WBR
* NBT	2840	1800	35	461	817	56	1.0	13.5	B	8	45	43	45	-2----	2840	NBT *
NBL	2841	1300	35	71	621	11	1.0	9.9	B	1	45	43	45	-2----	2841	NBL
NBR	2842	-	-	24	43	56	1.0	13.5	B	-	45	43	45	-2----	2842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1617 WEIGHTED AVERAGE DELAY = 12.6 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .56/A WEIGHTED AVERAGE DELAY = 13.4 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 29 - "E" STREET @ LA CADENA STREE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	2910	1800	35	32	91	35	1.0	28.0	D+	2	13	11	0	1-----	2910	EBT
EBL	2911	-	-	10	29	35	1.0	28.0	D+	-	13	11	0	1-----	2911	EBL
EBR	2912	-	-	35	100	35	1.0	28.0	D+	-	13	11	0	1-----	2912	EBR
SBT	2920	1800	35	395	1384	29	1.0	1.3	A	2	77	75	13	-2----	2920	SBT
SBL	2921	1400	35	17	1167	1	1.0	1.0	A	0	77	75	13	-2----	2921	SBL
SBR	2922	-	-	33	116	29	1.0	1.3	A	-	77	75	13	-2----	2922	SBR
* WBT	2930	1800	35	41	106	39	1.0	28.3	D+	2	13	11	0	1-----	2930	WBT *
WBL	2931	-	-	17	44	39	1.0	28.3	D+	-	13	11	0	1-----	2931	WBL
WBR	2932	-	-	27	70	39	1.0	28.3	D+	-	13	11	0	1-----	2932	WBR
* NBT	2940	1800	35	550	1435	38	1.0	1.5	A	3	77	75	13	-2----	2940	NBT *
NBL	2941	1400	35	33	1167	3	1.0	1.0	A	0	77	75	13	-2----	2941	NBL
NBR	2942	-	-	25	65	38	1.0	1.5	A	-	77	75	13	-2----	2942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1215 WEIGHTED AVERAGE DELAY = 5.0 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .38/A WEIGHTED AVERAGE DELAY = 4.9 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 30 - "G" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/20/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	3010	1800	35	31	70	44	1.0	29.5	D+	2	12	10	0	1-----	3010	EBT *
EBL	3011	-	-	17	39	44	1.0	29.5	D+	-	12	10	0	1-----	3011	EBL
EBR	3012	-	-	40	91	44	1.0	29.5	D+	-	12	10	0	1-----	3012	EBR
SBT	3020	1800	35	492	1444	34	1.0	1.2	A	3	78	76	12	-2----	3020	SBT
SBL	3021	1400	35	10	1182	1	1.0	.8	A	0	78	76	12	-2----	3021	SBL
SBR	3022	-	-	26	76	34	1.0	1.2	A	-	78	76	12	-2----	3022	SBR
WBT	3030	1800	35	43	100	43	1.0	29.4	D+	2	12	10	0	1-----	3030	WBT
WBL	3031	-	-	31	72	43	1.0	29.4	D+	-	12	10	0	1-----	3031	WBL
WBR	3032	-	-	12	28	43	1.0	29.4	D+	-	12	10	0	1-----	3032	WBR
* NBT	3040	1800	35	604	1428	42	1.0	1.4	A	4	78	76	12	-2----	3040	NBT *
NBL	3041	1400	35	33	1182	3	1.0	.9	A	0	78	76	12	-2----	3041	NBL
NBR	3042	-	-	39	92	42	1.0	1.4	A	-	78	76	12	-2----	3042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1378 WEIGHTED AVERAGE DELAY = 4.9 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .43/A WEIGHTED AVERAGE DELAY = 4.8 DELAY LOS = A SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 31 - "H" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	3110	1800	35	266	443	60	1.0	14.9	B	9	43	41	0	1-----	3110	EBT *
EBL	3111	1300	35	82	592	14	1.0	10.9	B	1	43	41	0	1-----	3111	EBL
EBR	3112	-	-	226	377	60	1.0	14.9	B	-	43	41	0	1-----	3112	EBR
SBT	3120	3600	35	420	1512	28	1.0	10.0	B	3	47	45	43	-2----	3120	SBT
SBL	3121	1300	35	75	650	12	1.0	9.1	B	1	47	45	43	-2----	3121	SBL
SBR	3122	-	-	80	288	28	1.0	10.0	B	-	47	45	43	-2----	3122	SBR
WBT	3130	1800	35	219	668	33	1.0	12.0	B	4	43	41	0	1-----	3130	WBT
WBL	3131	1100	35	299	501	60	1.0	15.4	C	5	43	41	0	1-----	3131	WBL
WBR	3132	-	-	50	152	33	1.0	12.0	B	-	43	41	0	1-----	3132	WBR
NBT	3140	3600	35	603	1168	52	1.0	11.8	B	7	47	45	43	-2----	3140	NBT
* NBL	3141	1000	35	307	500	61	1.0	14.1	B	6	47	45	43	-2----	3141	NBL *
NBR	3142	-	-	326	632	52	1.0	11.8	B	-	47	45	43	-2----	3142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2953 WEIGHTED AVERAGE DELAY = 12.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .61/B WEIGHTED AVERAGE DELAY = 14.6 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 32 - VALLEY BLVD @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	3210	3600	35	623	726	86	1.0	30.4	D	9	25	23	24	-2----	3210	EBT *
EBL	3211	1700	35	192	416	46	1.0	22.7	C	4	24	22	0	1-----	3211	EBL
EBR	3212	-	-	167	194	86	1.0	30.4	D	-	25	23	24	-2----	3212	EBR
SBT	3220	3600	35	610	1200	51	1.0	14.4	B	7	41	39	49	--3---	3220	SBT
SBL	3221	1200	35	156	520	30	1.0	12.8	B	3	41	39	49	--3---	3221	SBL
SBR	3222	-	-	183	360	51	1.0	14.4	B	-	41	39	49	--3---	3222	SBR
WBT	3230	3600	35	656	920	71	1.0	25.1	D+	7	25	23	24	-2----	3230	WBT
* WBL	3231	1700	35	352	416	85	1.0	35.5	D-	8	24	22	0	1-----	3231	WBL *
WBR	3232	1800	35	172	460	37	1.0	21.3	C	4	25	23	24	-2----	3232	WBR
* NBT	3240	3600	35	822	964	85	1.0	21.1	C	14	41	39	49	--3---	3240	NBT *
NBL	3241	1100	35	279	477	59	1.0	16.2	C	5	41	39	49	--3---	3241	NBL
NBR	3242	-	-	508	596	85	1.0	21.1	C	-	41	39	49	--3---	3242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4720 WEIGHTED AVERAGE DELAY = 22.7 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .85/D WEIGHTED AVERAGE DELAY = 26.1 DELAY LOS = D+ SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 33 - I-10 W/B @ LA CADENA DR   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	SBT	3320	3600	35	857	2574	33	1.0	1.9	A	3	74	72	16	-2----	3320	SBT	
	SBR	3322	-	-	102	306	33	1.0	1.9	A	-	74	72	16	-2----	3322	SBR	
*	WBT	3330	1800	35	10	19	54	1.0	28.3	D+	3	16	14	0	1-----	3330	WBT	*
	WBL	3331	-	-	130	243	54	1.0	28.3	D+	-	16	14	0	1-----	3331	WBL	
	WBR	3332	-	-	10	19	54	1.0	28.3	D+	-	16	14	0	1-----	3332	WBR	
*	NBT	3340	3600	35	1332	2556	52	1.0	2.5	A	6	74	72	16	-2----	3340	NBT	*
	NBL	3341	-	-	169	324	52	1.0	2.5	A	-	74	72	16	-2----	3341	NBL	

INTERSECTION SUMMARY : TOTAL FLOW = 2610   WEIGHTED AVERAGE DELAY = 3.8   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .52/A   WEIGHTED AVERAGE DELAY = 4.9   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 34 - "M" STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	3410	1800	35	22	42	53	1.0	26.3	D+	4	19	17	0	1-----	3410	EBT	*
	EBL	3411	-	-	148	280	53	1.0	26.3	D+	-	19	17	0	1-----	3411	EBL	
	EBR	3412	-	-	10	19	53	1.0	26.3	D+	-	19	17	0	1-----	3412	EBR	
	SBT	3420	3600	35	857	2414	36	1.0	2.6	A	4	71	69	19	-2----	3420	SBT	
	SBL	3421	-	-	96	270	36	1.0	2.6	A	-	71	69	19	-2----	3421	SBL	
	SBR	3422	-	-	27	76	36	1.0	2.6	A	-	71	69	19	-2----	3422	SBR	
	WBT	3430	1800	35	10	35	29	1.0	24.0	C	2	19	17	0	1-----	3430	WBT	
	WBL	3431	-	-	39	135	29	1.0	24.0	C	-	19	17	0	1-----	3431	WBL	
	WBR	3432	-	-	49	170	29	1.0	24.0	C	-	19	17	0	1-----	3432	WBR	
*	NBT	3440	3600	35	1335	2559	52	1.0	3.3	A	7	71	69	19	-2----	3440	NBT	*
	NBL	3441	-	-	10	19	52	1.0	3.3	A	-	71	69	19	-2----	3441	NBL	
	NBR	3442	-	-	95	182	52	1.0	3.3	A	-	71	69	19	-2----	3442	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2698   WEIGHTED AVERAGE DELAY = 5.3   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .52/A   WEIGHTED AVERAGE DELAY = 5.8   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 35 - "N" STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	3510	1800	35	32	56	57	1.0	17.3	C	8	37	35	0	1-----	3510	EBT *
EBL	3511	-	-	303	534	57	1.0	17.3	C	-	37	35	0	1-----	3511	EBL
EBR	3512	-	-	62	109	57	1.0	17.3	C	-	37	35	0	1-----	3512	EBR
SBT	3520	3600	35	689	1486	46	1.0	8.9	B	7	53	51	37	-2----	3520	SBT
SBL	3521	1400	35	16	793	2	1.0	6.5	B	0	53	51	37	-2----	3521	SBL
SBR	3522	-	-	257	554	46	1.0	8.9	B	-	53	51	37	-2----	3522	SBR
WBT	3530	1800	35	12	210	6	1.0	13.1	B	1	37	35	0	1-----	3530	WBT
WBL	3531	-	-	10	175	6	1.0	13.1	B	-	37	35	0	1-----	3531	WBL
WBR	3532	-	-	18	315	6	1.0	13.1	B	-	37	35	0	1-----	3532	WBR
* NBT	3540	3600	35	1115	2001	56	1.0	9.7	B	9	53	51	37	-2----	3540	NBT *
NBL	3541	1400	35	33	793	4	1.0	6.6	B	0	53	51	37	-2----	3541	NBL
NBR	3542	-	-	22	39	56	1.0	9.7	B	-	53	51	37	-2----	3542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2569   WEIGHTED AVERAGE DELAY = 10.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .56/A   WEIGHTED AVERAGE DELAY = 11.7   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 36 - 7TH STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	3610	1800	35	27	300	9	1.0	15.7	C	1	32	30	0	1-----	3610	EBT
EBL	3611	-	-	10	111	9	1.0	15.7	C	-	32	30	0	1-----	3611	EBL
EBR	3612	-	-	17	189	9	1.0	15.7	C	-	32	30	0	1-----	3612	EBR
SBT	3620	3600	35	413	1749	24	1.0	5.8	B	3	58	56	32	-2----	3620	SBT
SBL	3621	-	-	106	449	24	1.0	5.8	B	-	58	56	32	-2----	3621	SBL
SBR	3622	-	-	10	42	24	1.0	5.8	B	-	58	56	32	-2----	3622	SBR
* WBT	3630	1800	35	13	20	66	1.0	21.5	C	8	32	30	0	1-----	3630	WBT *
WBL	3631	-	-	10	15	66	1.0	21.5	C	-	32	30	0	1-----	3631	WBL
WBR	3632	-	-	373	565	66	1.0	21.5	C	-	32	30	0	1-----	3632	WBR
* NBT	3640	1800	35	675	1046	65	1.0	9.2	B	11	58	56	32	-2----	3640	NBT *
NBL	3641	-	-	23	36	65	1.0	9.2	B	-	58	56	32	-2----	3641	NBL
NBR	3642	-	-	25	39	65	1.0	9.2	B	-	58	56	32	-2----	3642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1702   WEIGHTED AVERAGE DELAY = 11.2   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .65/B   WEIGHTED AVERAGE DELAY = 13.5   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 37 - FOGG STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	3710	1800	35	146	259	56	1.0	24.0	C	5	24	22	0	1-----	3710	EBT *
EBL	3711	-	-	41	73	56	1.0	24.0	C	-	24	22	0	1-----	3711	EBL
EBR	3712	-	-	61	108	56	1.0	24.0	C	-	24	22	0	1-----	3712	EBR
SBT	3720	1800	35	334	1080	31	1.0	3.7	A	4	66	64	24	-2----	3720	SBT
SBL	3721	-	-	12	39	31	1.0	3.7	A	-	66	64	24	-2----	3721	SBL
SBR	3722	-	-	50	162	31	1.0	3.7	A	-	66	64	24	-2----	3722	SBR
WBT	3730	1800	35	44	117	37	1.0	21.8	C	3	24	22	0	1-----	3730	WBT
WBL	3731	-	-	94	251	37	1.0	21.8	C	-	24	22	0	1-----	3731	WBL
WBR	3732	-	-	27	72	37	1.0	21.8	C	-	24	22	0	1-----	3732	WBR
* NBT	3740	1800	35	553	974	57	1.0	5.3	B	9	66	64	24	-2----	3740	NBT *
NBL	3741	-	-	30	53	57	1.0	5.3	B	-	66	64	24	-2----	3741	NBL
NBR	3742	-	-	144	254	57	1.0	5.3	B	-	66	64	24	-2----	3742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1536   WEIGHTED AVERAGE DELAY = 9.7   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .57/A   WEIGHTED AVERAGE DELAY = 10.0   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 38 - FOGG STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
SBT	3820	3600	35	720	2920	25	1.0	1.5	A	2	75	73	15	-2----	3820	SBT
SBL	3821	1200	35	149	973	15	1.0	1.4	A	1	75	73	15	-2----	3821	SBL
WBL	3831	1700	35	10	246	4	1.0	25.2	D+	0	15	13	0	1-----	3831	WBL
* WBR	3832	1800	35	68	260	26	1.0	26.2	D+	2	15	13	0	1-----	3832	WBR *
* NBT	3840	3600	35	724	2880	25	1.0	1.6	A	2	75	73	15	-2----	3840	NBT *
NBR	3842	-	-	10	40	25	1.0	1.6	A	-	75	73	15	-2----	3842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1681   WEIGHTED AVERAGE DELAY = 2.7   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .25/A   WEIGHTED AVERAGE DELAY = 3.6   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 39 - RANCHO AVENUE @ LA CADENA DR — C.E. UPDATE — YEAR 2010 BASE STREET NETWORK — PM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBL	3911	1700	35	65	397	16	1.0	20.9	C	1	23	21	0	1-----	3911	EBL	
*	EBR	3912	1800	35	682	420	162**	1.0	631.6	F	30	23	21	0	1-----	3912	EBR	*
	SBT	3920	1800	35	469	1232	38	1.0	3.8	A	5	67	65	23	-2----	3920	SBT	
	SBR	3922	-	-	26	68	38	1.0	3.8	A	-	67	65	23	-2----	3922	SBR	
	NBT	3940	1800	35	583	1300	45	1.0	4.1	A	6	67	65	23	-2----	3940	NBT	
*	NBL	3941	600	35	717	433	165**	1.0	636.9	F	36	67	65	23	-2----	3941	NBL	*

INTERSECTION SUMMARY : TOTAL FLOW = 2542 — WEIGHTED AVERAGE DELAY = 351.3 — DELAY LOS = F — CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.65/F — WEIGHTED AVERAGE DELAY = 634.3 — DELAY LOS = F — SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

INTERSECTION # 40 - WASHINGTON STRE @ LA CADENA DR — C.E. UPDATE — YEAR 2010 BASE STREET NETWORK — PM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	4010	1800	35	10	160	6	1.0	18.7	C	1	26	24	0	1-----	4010	EBT	
	EBL	4011	-	-	10	160	6	1.0	18.7	C	-	26	24	0	1-----	4011	EBL	
	EBR	4012	-	-	10	160	6	1.0	18.7	C	-	26	24	0	1-----	4012	EBR	
	SBT	4020	1800	35	483	1017	48	1.0	5.2	B	7	64	62	26	-2----	4020	SBT	
	SBL	4021	-	-	96	202	48	1.0	5.2	B	-	64	62	26	-2----	4021	SBL	
	SBR	4022	-	-	10	21	48	1.0	5.2	B	-	64	62	26	-2----	4022	SBR	
*	WBT	4030	1800	35	10	21	48	1.0	21.8	C	5	26	24	0	1-----	4030	WBT	*
	WBL	4031	-	-	10	21	48	1.0	21.8	C	-	26	24	0	1-----	4031	WBL	
	WBR	4032	-	-	212	439	48	1.0	21.8	C	-	26	24	0	1-----	4032	WBR	
*	NBT	4040	1800	35	594	1200	50	1.0	5.3	B	7	64	62	26	-2----	4040	NBT	*
	NBL	4041	-	-	10	20	50	1.0	5.3	B	-	64	62	26	-2----	4041	NBL	
	NBR	4042	-	-	10	20	50	1.0	5.3	B	-	64	62	26	-2----	4042	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1465 — WEIGHTED AVERAGE DELAY = 8.2 — DELAY LOS = B — CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .49/A — WEIGHTED AVERAGE DELAY = 9.8 — DELAY LOS = B — SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 41 - BARTON ROAD @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
SBT	4120	3600	35	911	2160	42	1.0	7.4	B	6	56	54	34	-2----	4120	SBT
* SBL	4121	900	35	384	540	71	1.0	12.7	B	7	56	54	34	-2----	4121	SBL *
WBL	4131	1700	35	288	604	48	1.0	17.6	C	6	34	32	0	1-----	4131	WBL
* WBR	4132	1800	35	451	640	70	1.0	21.6	C	10	34	32	0	1-----	4132	WBR *
NBT	4140	3600	35	1089	2160	50	1.0	8.1	B	7	56	54	34	-2----	4140	NBT
NBR	4142	1800	35	234	1080	22	1.0	6.3	B	3	56	54	34	-2----	4142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3357 WEIGHTED AVERAGE DELAY = 10.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .71/C WEIGHTED AVERAGE DELAY = 17.5 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 42 - I-215 S/B @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	4211	1700	35	842	831	101**	1.0	46.4	E	31	46	44	0	1-----	4211	EBL *
EBR	4212	1800	35	750	880	85	1.0	21.4	C	16	46	44	0	1-----	4212	EBR
SBT	4220	1800	35	538	840	64	1.0	15.2	C	10	44	42	46	-2----	4220	SBT
* NBT	4240	1800	35	857	840	102**	1.0	49.1	E	43	44	42	46	-2----	4240	NBT *

INTERSECTION SUMMARY : TOTAL FLOW = 2987 WEIGHTED AVERAGE DELAY = 35.3 DELAY LOS = D- CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.02/F WEIGHTED AVERAGE DELAY = 47.8 DELAY LOS = E SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 43 - I-215 N/B @ LA CADENA DR C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* SBT	4320	1800	35	804	810	99**	1.0	28.3	D+	31	67	65	23	-2----	4320	SBT *
SBL	4321	-	-	487	490	99**	1.0	28.3	D+	-	67	65	23	-2----	4321	SBL
WBL	4331	1700	35	22	397	6	1.0	20.4	C	0	23	21	0	1-----	4331	WBL
* WBR	4332	1800	35	416	420	99**	1.0	58.9	E-	10	23	21	0	1-----	4332	WBR *
NBT	4340	1800	35	504	1137	44	1.0	4.1	A	6	67	65	23	-2----	4340	NBT
NBR	4342	-	-	72	162	44	1.0	4.1	A	-	67	65	23	-2----	4342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2305 WEIGHTED AVERAGE DELAY = 27.7 DELAY LOS = D+ CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .99/E WEIGHTED AVERAGE DELAY = 35.7 DELAY LOS = D- SYSTEM (BG) OFFSET = 86

INTERSECTION # 44 - "H" STREET @ 9TH STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	4410	1800	35	282	416	68	1.0	14.0	B	11	48	46	0	1-----	4410	EBT *
EBL	4411	-	-	211	311	68	1.0	14.0	B	-	48	46	0	1-----	4411	EBL
EBR	4412	-	-	131	193	68	1.0	14.0	B	-	48	46	0	1-----	4412	EBR
* SBT	4420	1800	35	276	399	69	1.0	17.2	C	11	42	40	48	-2----	4420	SBT *
SBL	4421	1400	35	16	622	3	1.0	10.7	B	0	42	40	48	-2----	4421	SBL
SBR	4422	-	-	277	401	69	1.0	17.2	C	-	42	40	48	-2----	4422	SBR
WBT	4430	1800	35	151	724	21	1.0	9.2	B	3	48	46	0	1-----	4430	WBT
WBL	4431	-	-	28	134	21	1.0	9.2	B	-	48	46	0	1-----	4431	WBL
WBR	4432	-	-	13	62	21	1.0	9.2	B	-	48	46	0	1-----	4432	WBR
NBT	4440	1800	35	455	734	62	1.0	15.7	C	10	42	40	48	-2----	4440	NBT
NBL	4441	1300	35	75	578	13	1.0	11.2	B	1	42	40	48	-2----	4441	NBL
NBR	4442	-	-	41	66	62	1.0	15.7	C	-	42	40	48	-2----	4442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1956 WEIGHTED AVERAGE DELAY = 14.7 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .68/B WEIGHTED AVERAGE DELAY = 15.5 DELAY LOS = C SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 45 - VALLEY BLVD @ 9TH STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	4510	3600	35	682	825	83	1.0	19.5	C	14	42	40	6	-2----	4510	EBT *
* EBL	4511	1700	35	60	76	79	1.0	60.9	F	1	6	4	0	1-----	4511	EBL *
EBR	4512	-	-	641	775	83	1.0	19.5	C	-	42	40	6	-2----	4512	EBR
* SBT	4520	1800	35	274	320	86	1.0	41.6	E+	7	18	16	48	--3---	4520	SBT *
SBL	4521	1700	35	87	302	29	1.0	24.6	C	2	18	16	48	--3---	4521	SBL
SBR	4522	1800	35	36	320	11	1.0	23.6	C	1	18	16	48	--3---	4522	SBR
WBT	4530	3600	35	937	1363	69	1.0	16.2	C	11	42	40	6	-2----	4530	WBT
WBL	4531	1700	35	53	76	70	1.0	48.9	E	1	6	4	0	1-----	4531	WBL
WBR	4532	-	-	163	237	69	1.0	16.2	C	-	42	40	6	-2----	4532	WBR
* NBT	4540	1800	35	372	440	85	1.0	34.9	D	9	24	22	66	---4--	4540	NBT *
NBL	4541	1700	35	217	416	52	1.0	23.4	C	5	24	22	66	---4--	4541	NBL
NBR	4542	1800	35	128	440	29	1.0	21.2	C	3	24	22	66	---4--	4542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3650 WEIGHTED AVERAGE DELAY = 23.3 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .84/D WEIGHTED AVERAGE DELAY = 26.5 DELAY LOS = D+ SYSTEM (BG) OFFSET = 86

INTERSECTION # 46 - I-10 W/B @ 9TH STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* SBT	4620	1800	35	989	1076	92**	1.0	21.2	C	22	57	55	33	-2----	4620	SBT *
SBR	4622	-	-	22	24	92**	1.0	21.2	C	-	57	55	33	-2----	4622	SBR
* WBT	4630	1800	35	133	143	93**	1.0	37.2	D-	14	33	31	0	1-----	4630	WBT *
WBL	4631	-	-	12	13	93**	1.0	37.2	D-	-	33	31	0	1-----	4631	WBL
WBR	4632	-	-	431	464	93**	1.0	37.2	D-	-	33	31	0	1-----	4632	WBR
NBT	4640	1800	35	354	1058	33	1.0	6.6	B	4	57	55	33	-2----	4640	NBT
NBL	4641	-	-	14	42	33	1.0	6.6	B	-	57	55	33	-2----	4641	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 1955 WEIGHTED AVERAGE DELAY = 23.2 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .92/E WEIGHTED AVERAGE DELAY = 27.0 DELAY LOS = D+ SYSTEM (BG) OFFSET = 86

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INTERSECTION # 47 - I-10 E/B @ 9TH STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	4711	1700	35	360	441	82	1.0	31.5	D	8	26	24	0	1-----	4711	EBL *
EBR	4712	-	-	10	12	82	1.0	31.5	D	-	26	24	0	1-----	4712	EBR
* SBT	4720	1800	35	10	12	81	1.0	10.5	B	17	64	62	26	-2----	4720	SBT *
SBL	4721	-	-	991	1228	81	1.0	10.5	B	8	64	62	26	-2----	4721	SBL
NBT	4740	1800	35	10	620	2	1.0	3.4	A	0	64	62	26	-2----	4740	NBT
NBR	4742	-	-	10	620	2	1.0	3.4	A	-	64	62	26	-2----	4742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1391 WEIGHTED AVERAGE DELAY = 16.0 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .81/D WEIGHTED AVERAGE DELAY = 16.2 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 48 - GRANT AVENUE/CI @ MT VERNON AVE/L C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	4810	1800	35	329	518	63	1.0	21.0	C	8	32	30	0	1-----	4810	EBT
* EBL	4811	1700	35	627	567	111**	1.0	92.8	F	26	32	30	0	1-----	4811	EBL *
EBR	4812	-	-	52	82	63	1.0	21.0	C	-	32	30	0	1-----	4812	EBR
* SBT	4820	3600	35	700	664	105**	1.0	63.2	F	28	29	27	56	--34--	4820	SBT *
* SBL	4821	1700	35	172	170	101**	1.0	89.4	F	5	11	9	56	--3---	4821	SBL *
SBR	4822	-	-	439	416	105**	1.0	63.2	F	-	29	27	56	--34--	4822	SBR
* WBT	4830	1800	35	465	440	106**	1.0	78.7	F	16	24	22	32	-2----	4830	WBT *
WBL	4831	1700	35	136	416	33	1.0	21.4	C	3	24	22	32	-2----	4831	WBL
WBR	4832	1800	35	118	440	27	1.0	21.0	C	2	24	22	32	-2----	4832	WBR
NBT	4840	3600	35	666	652	102**	1.0	57.3	E-	21	23	21	67	---45-	4840	NBT
NBL	4841	1700	35	24	57	42	1.0	35.6	D-	1	5	3	85	----5-	4841	NBL
NBR	4842	-	-	192	188	102**	1.0	57.3	E-	-	23	21	67	---45-	4842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3920 WEIGHTED AVERAGE DELAY = 62.6 DELAY LOS = F CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.07/F WEIGHTED AVERAGE DELAY = 75.8 DELAY LOS = F SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 49 - LAUREL STREET @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBL	4911	1700	35	57	246	23	1.0	26.0	D+	1	15	13	0	1-----	4911	EBL
* EBR	4912	1800	35	79	260	30	1.0	26.4	D+	2	15	13	0	1-----	4912	EBR *
* SBT	4920	3600	35	807	2654	30	1.0	1.6	A	3	75	73	15	-2----	4920	SBT *
SBR	4922	-	-	81	266	30	1.0	1.6	A	-	75	73	15	-2----	4922	SBR
NBT	4940	3600	35	528	2920	18	1.0	1.4	A	1	75	73	15	-2----	4940	NBT
NBL	4941	1300	35	53	1054	5	1.0	1.3	A	0	75	73	15	-2----	4941	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 1605   WEIGHTED AVERAGE DELAY = 3.7   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .30/A   WEIGHTED AVERAGE DELAY = 3.7   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 50 - OLIVE STREET @ MT VERNON AVE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBL	5011	1800	35	38	160	24	1.0	29.2	D+	1	10	8	0	1-----	5011	EBL
* EBR	5012	1700	35	59	151	39	1.0	30.3	D	1	10	8	0	1-----	5012	EBR *
* SBT	5020	3600	35	1143	2974	38	1.0	1.0	A	2	80	78	10	-2----	5020	SBT *
SBR	5022	-	-	56	146	38	1.0	1.0	A	-	80	78	10	-2----	5022	SBR
NBT	5040	3600	35	643	3120	21	1.0	.7	A	1	80	78	10	-2----	5040	NBT
NBL	5041	1300	35	60	1127	5	1.0	.6	A	0	80	78	10	-2----	5041	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 1999   WEIGHTED AVERAGE DELAY = 2.3   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .38/A   WEIGHTED AVERAGE DELAY = 2.3   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 51 - COLTON AVENUE @ MT VERNON AVENU C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	5110	1800	35	303	700	43	1.0	15.7	C	5	37	35	0	1-----	5110	EBT
EBL	5111	1300	35	114	506	23	1.0	14.1	B	2	37	35	0	1-----	5111	EBL
EBR	5112	1800	35	13	700	2	1.0	12.9	B	0	37	35	0	1-----	5112	EBR
SBT	5120	3600	35	897	1845	49	1.0	9.1	B	7	53	51	37	-2----	5120	SBT
SBL	5121	1300	35	47	737	6	1.0	6.7	B	1	53	51	37	-2----	5121	SBL
SBR	5122	-	-	95	195	49	1.0	9.1	B	-	53	51	37	-2----	5122	SBR
* WBT	5130	1800	35	250	512	49	1.0	16.3	C	6	37	35	0	1-----	5130	WBT *
WBL	5131	1200	35	210	467	45	1.0	16.0	C	4	37	35	0	1-----	5131	WBL
WBR	5132	-	-	92	188	49	1.0	16.3	C	-	37	35	0	1-----	5132	WBR
* NBT	5140	3600	35	842	1696	50	1.0	9.1	B	7	53	51	37	-2----	5140	NBT *
NBL	5141	1400	35	10	793	1	1.0	6.5	B	0	53	51	37	-2----	5141	NBL
NBR	5142	-	-	171	344	50	1.0	9.1	B	-	53	51	37	-2----	5142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3044 WEIGHTED AVERAGE DELAY = 11.2 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .49/A WEIGHTED AVERAGE DELAY = 10.9 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 52 - "C" STREET @ COLTON AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5210	1800	35	113	363	31	1.0	16.1	C	4	34	32	0	1-----	5210	EBT *
EBL	5211	-	-	73	235	31	1.0	16.1	C	-	34	32	0	1-----	5211	EBL
EBR	5212	-	-	13	42	31	1.0	16.1	C	-	34	32	0	1-----	5212	EBR
SBT	5220	1800	35	234	782	30	1.0	6.7	B	4	56	54	34	-2----	5220	SBT
SBL	5221	-	-	10	33	30	1.0	6.7	B	-	56	54	34	-2----	5221	SBL
SBR	5222	-	-	79	264	30	1.0	6.7	B	-	56	54	34	-2----	5222	SBR
WBT	5230	1800	35	124	551	22	1.0	15.5	C	2	34	32	0	1-----	5230	WBT
WBL	5231	-	-	10	44	22	1.0	15.5	C	-	34	32	0	1-----	5231	WBL
WBR	5232	-	-	10	44	22	1.0	15.5	C	-	34	32	0	1-----	5232	WBR
* NBT	5240	1800	35	301	991	30	1.0	6.8	B	4	56	54	34	-2----	5240	NBT *
NBL	5241	-	-	11	36	30	1.0	6.8	B	-	56	54	34	-2----	5241	NBL
NBR	5242	-	-	16	53	30	1.0	6.8	B	-	56	54	34	-2----	5242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 994 WEIGHTED AVERAGE DELAY = 9.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .31/A WEIGHTED AVERAGE DELAY = 10.3 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 53 - "E" STREET @ COLTON STREET   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	5310	1800	35	38	170	22	1.0	24.8	C	1	17	15	0	1-----	5310	EBT	*
	EBL	5311	-	-	19	85	22	1.0	24.8	C	-	17	15	0	1-----	5311	EBL	
	EBR	5312	-	-	10	45	22	1.0	24.8	C	-	17	15	0	1-----	5312	EBR	
	SBT	5320	1800	35	202	1253	16	1.0	1.8	A	1	73	71	17	-2----	5320	SBT	
	SBL	5321	-	-	10	62	16	1.0	1.8	A	-	73	71	17	-2----	5321	SBL	
	SBR	5322	-	-	17	105	16	1.0	1.8	A	-	73	71	17	-2----	5322	SBR	
	WBT	5330	1800	35	29	178	16	1.0	24.5	C	1	17	15	0	1-----	5330	WBT	
	WBL	5331	-	-	10	61	16	1.0	24.5	C	-	17	15	0	1-----	5331	WBL	
	WBR	5332	-	-	10	61	16	1.0	24.5	C	-	17	15	0	1-----	5332	WBR	
*	NBT	5340	1800	35	297	1330	22	1.0	1.9	A	2	73	71	17	-2----	5340	NBT	*
	NBL	5341	-	-	10	45	22	1.0	1.9	A	-	73	71	17	-2----	5341	NBL	
	NBR	5342	-	-	10	45	22	1.0	1.9	A	-	73	71	17	-2----	5342	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 662   WEIGHTED AVERAGE DELAY = 5.8   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .22/A   WEIGHTED AVERAGE DELAY = 5.9   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 54 - "F" STREET @ COLTON AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	5410	1800	35	52	325	16	1.0	18.7	C	1	27	25	0	1-----	5410	EBT	
	EBL	5411	-	-	18	113	16	1.0	18.7	C	-	27	25	0	1-----	5411	EBL	
	EBR	5412	-	-	10	63	16	1.0	18.7	C	-	27	25	0	1-----	5412	EBR	
	SBT	5420	1800	35	196	1087	18	1.0	4.1	A	2	63	61	27	-2----	5420	SBT	
	SBL	5421	-	-	12	67	18	1.0	4.1	A	-	63	61	27	-2----	5421	SBL	
	SBR	5422	-	-	12	67	18	1.0	4.1	A	-	63	61	27	-2----	5422	SBR	
*	WBT	5430	1800	35	97	370	26	1.0	19.3	C	3	27	25	0	1-----	5430	WBT	*
	WBL	5431	-	-	18	69	26	1.0	19.3	C	-	27	25	0	1-----	5431	WBL	
	WBR	5432	-	-	16	61	26	1.0	19.3	C	-	27	25	0	1-----	5432	WBR	
*	NBT	5440	1800	35	296	1132	26	1.0	4.4	A	3	63	61	27	-2----	5440	NBT	*
	NBL	5441	-	-	10	38	26	1.0	4.4	A	-	63	61	27	-2----	5441	NBL	
	NBR	5442	-	-	13	50	26	1.0	4.4	A	-	63	61	27	-2----	5442	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 750   WEIGHTED AVERAGE DELAY = 8.4   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .26/A   WEIGHTED AVERAGE DELAY = 8.7   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 55 - "H" STREET @ 10TH STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	5510	1800	35	129	458	28	1.0	4.7	A	3	62	60	0	1-----	5510	EBT	*
	EBL	5511	-	-	196	696	28	1.0	4.7	A	-	62	60	0	1-----	5511	EBL	
	EBR	5512	-	-	13	46	28	1.0	4.7	A	-	62	60	0	1-----	5512	EBR	
	SBT	5520	1800	35	73	285	26	1.0	18.8	C	3	28	26	62	-2----	5520	SBT	
	SBL	5521	-	-	10	39	26	1.0	18.8	C	-	28	26	62	-2----	5521	SBL	
	SBR	5522	-	-	50	195	26	1.0	18.8	C	-	28	26	62	-2----	5522	SBR	
	WBT	5530	1800	35	129	1039	12	1.0	4.2	A	1	62	60	0	1-----	5530	WBT	
	WBL	5531	-	-	10	81	12	1.0	4.2	A	-	62	60	0	1-----	5531	WBL	
	WBR	5532	-	-	10	81	12	1.0	4.2	A	-	62	60	0	1-----	5532	WBR	
*	NBT	5540	1800	35	118	409	29	1.0	19.0	C	3	28	26	62	-2----	5540	NBT	*
	NBL	5541	-	-	22	76	29	1.0	19.0	C	-	28	26	62	-2----	5541	NBL	
	NBR	5542	-	-	10	35	29	1.0	19.0	C	-	28	26	62	-2----	5542	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 770 WEIGHTED AVERAGE DELAY = 9.8 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .28/A WEIGHTED AVERAGE DELAY = 9.1 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 56 - VALLEY BLVD @ 10TH STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	5610	3600	35	750	1618	46	1.0	13.1	B	6	43	41	0	1-----	5610	EBT	
*	EBL	5611	1100	35	249	501	50	1.0	13.8	B	4	43	41	0	1-----	5611	EBL	*
	EBR	5612	-	-	10	22	46	1.0	13.1	B	-	43	41	0	1-----	5612	EBR	
	SBT	5620	1800	35	10	90	11	1.0	9.1	B	1	47	45	43	-2----	5620	SBT	
	SBL	5621	-	-	14	126	11	1.0	9.1	B	-	47	45	43	-2----	5621	SBL	
	SBR	5622	-	-	76	684	11	1.0	9.1	B	-	47	45	43	-2----	5622	SBR	
	WBT	5630	3600	35	575	1612	36	1.0	12.2	B	4	43	41	0	1-----	5630	WBT	
	WBL	5631	1400	35	10	638	2	1.0	10.2	B	0	43	41	0	1-----	5631	WBL	
	WBR	5632	-	-	10	28	36	1.0	12.2	B	-	43	41	0	1-----	5632	WBR	
*	NBT	5640	1800	35	14	28	50	1.0	11.8	B	7	47	45	43	-2----	5640	NBT	*
	NBL	5641	-	-	425	852	50	1.0	11.8	B	-	47	45	43	-2----	5641	NBL	
	NBR	5642	-	-	10	20	50	1.0	11.8	B	-	47	45	43	-2----	5642	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2153 WEIGHTED AVERAGE DELAY = 12.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .50/A WEIGHTED AVERAGE DELAY = 12.5 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
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MONITOR

INTERSECTION # 57 - "E" STREET @ MT VERNON AVENU C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	5710	1800	35	10	25	40	1.0	30.4	D	1	10	8	0	1-----	5710	EBT	*
	EBL	5711	-	-	16	40	40	1.0	30.4	D	-	10	8	0	1-----	5711	EBL	
	EBR	5712	-	-	38	95	40	1.0	30.4	D	-	10	8	0	1-----	5712	EBR	
	SBT	5720	3600	35	1162	3072	38	1.0	1.0	A	2	80	78	10	-2----	5720	SBT	
	SBL	5721	1400	35	12	1213	1	1.0	.6	A	0	80	78	10	-2----	5721	SBL	
	SBR	5722	-	-	18	48	38	1.0	1.0	A	-	80	78	10	-2----	5722	SBR	
	WBT	5730	1800	35	10	53	19	1.0	29.0	D+	1	10	8	0	1-----	5730	WBT	
	WBL	5731	-	-	10	53	19	1.0	29.0	D+	-	10	8	0	1-----	5731	WBL	
	WBR	5732	-	-	10	53	19	1.0	29.0	D+	-	10	8	0	1-----	5732	WBR	
*	NBT	5740	3600	35	1300	3096	42	1.0	1.0	A	3	80	78	10	-2----	5740	NBT	*
	NBL	5741	1400	35	30	1213	2	1.0	.6	A	0	80	78	10	-2----	5741	NBL	
	NBR	5742	-	-	10	24	42	1.0	1.0	A	-	80	78	10	-2----	5742	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2626 WEIGHTED AVERAGE DELAY = 2.0 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .42/A WEIGHTED AVERAGE DELAY = 2.4 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 58 - FAIRWAY DR/"F"S @ MT VERNON AVENU C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	5810	1800	35	44	421	10	1.0	13.8	B	1	36	34	0	1-----	5810	EBT	
	EBL	5811	1400	35	19	529	4	1.0	13.4	B	0	36	34	0	1-----	5811	EBL	
	EBR	5812	-	-	27	259	10	1.0	13.8	B	-	36	34	0	1-----	5812	EBR	
*	SBT	5820	3600	35	1026	1450	71	1.0	17.9	C	10	39	37	51	--3---	5820	SBT	*
*	SBL	5821	1700	35	179	246	73	1.0	35.3	D-	4	15	13	36	-2----	5821	SBL	*
	SBR	5822	-	-	21	30	71	1.0	17.9	C	-	39	37	51	--3---	5822	SBR	
*	WBT	5830	1800	35	96	138	70	1.0	20.3	C	10	36	34	0	1-----	5830	WBT	*
	WBL	5831	1200	35	152	453	34	1.0	15.4	C	3	36	34	0	1-----	5831	WBL	
	WBR	5832	-	-	378	542	70	1.0	20.3	C	-	36	34	0	1-----	5832	WBR	
	NBT	5840	3600	35	857	1314	65	1.0	17.0	C	9	39	37	51	--3---	5840	NBT	
	NBL	5841	1700	35	30	246	12	1.0	25.5	D+	1	15	13	36	-2----	5841	NBL	
	NBR	5842	-	-	108	166	65	1.0	17.0	C	-	39	37	51	--3---	5842	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2937 WEIGHTED AVERAGE DELAY = 18.9 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .71/C WEIGHTED AVERAGE DELAY = 20.4 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 59 - "H" STREET @ MT VERNON AVENU C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	5910	1800	35	10	21	49	1.0	24.6	C	4	21	19	0	1-----	5910	EBT	*
	EBL	5911	-	-	78	160	49	1.0	24.6	C	-	21	19	0	1-----	5911	EBL	
	EBR	5912	-	-	97	199	49	1.0	24.6	C	-	21	19	0	1-----	5912	EBR	
*	SBT	5920	3600	35	1153	2431	47	1.0	3.6	A	6	69	67	21	-2----	5920	SBT	*
	SBL	5921	-	-	14	30	47	1.0	3.6	A	-	69	67	21	-2----	5921	SBL	
	SBR	5922	-	-	104	219	47	1.0	3.6	A	-	69	67	21	-2----	5922	SBR	
	WBT	5930	1800	35	10	70	14	1.0	22.0	C	1	21	19	0	1-----	5930	WBT	
	WBL	5931	-	-	10	70	14	1.0	22.0	C	-	21	19	0	1-----	5931	WBL	
	WBR	5932	-	-	34	239	14	1.0	22.0	C	-	21	19	0	1-----	5932	WBR	
	NBT	5940	3600	35	927	2651	35	1.0	3.1	A	4	69	67	21	-2----	5940	NBT	
	NBL	5941	1300	35	101	968	10	1.0	2.4	A	1	69	67	21	-2----	5941	NBL	
	NBR	5942	-	-	10	29	35	1.0	3.1	A	-	69	67	21	-2----	5942	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2548 WEIGHTED AVERAGE DELAY = 5.3 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .48/A WEIGHTED AVERAGE DELAY = 6.3 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 60 - VALLEY BLVD @ MT VERNON AVENU C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/07/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	6010	3600	35	261	416	63	1.0	22.6	C	7	27	25	0	1-----	6010	EBT	
	EBL	6011	1200	35	195	333	58	1.0	23.4	C	4	27	25	0	1-----	6011	EBL	
	EBR	6012	-	-	366	584	63	1.0	22.6	C	-	27	25	0	1-----	6012	EBR	
*	SBT	6020	3600	35	1089	1494	73	1.0	15.5	C	12	45	43	45	--3---	6020	SBT	*
	SBL	6021	1700	35	10	302	3	1.0	23.3	C	0	18	16	27	-2----	6021	SBL	
	SBR	6022	-	-	165	226	73	1.0	15.5	C	-	45	43	45	--3---	6022	SBR	
*	WBT	6030	3600	35	262	366	72	1.0	24.1	C	8	27	25	0	1-----	6030	WBT	*
	WBL	6031	-	-	231	323	72	1.0	24.1	C	-	27	25	0	1-----	6031	WBL	
	WBR	6032	-	-	223	311	72	1.0	24.1	C	-	27	25	0	1-----	6032	WBR	
	NBT	6040	3600	35	589	1496	39	1.0	11.6	B	5	45	43	45	--3---	6040	NBT	
*	NBL	6041	1700	35	207	302	68	1.0	30.8	D	5	18	16	27	-2----	6041	NBL	*
	NBR	6042	-	-	88	224	39	1.0	11.6	B	-	45	43	45	--3---	6042	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3686 WEIGHTED AVERAGE DELAY = 19.0 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .72/C WEIGHTED AVERAGE DELAY = 19.8 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 61 - FAIRWAY DRIVE @ SPERRY DRIVE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	6110	3600	35	282	841	34	1.0	21.4	C	3	24	22	28	-2----	6110	EBT
EBL	6111	1700	35	33	491	7	1.0	17.7	C	1	28	26	0	1-----	6111	EBL
EBR	6112	-	-	13	39	34	1.0	21.4	C	-	24	22	28	-2----	6112	EBR
SBT	6120	1800	35	10	218	5	1.0	12.6	B	0	38	36	52	--3---	6120	SBT
SBL	6121	1400	35	12	560	2	1.0	12.4	B	0	38	36	52	--3---	6121	SBL
SBR	6122	-	-	23	502	5	1.0	12.6	B	-	38	36	52	--3---	6122	SBR
* WBT	6130	3600	35	491	861	57	1.0	23.4	C	5	24	22	28	-2----	6130	WBT *
* WBL	6131	1700	35	276	491	56	1.0	21.9	C	6	28	26	0	1-----	6131	WBL *
WBR	6132	-	-	11	19	57	1.0	23.4	C	-	24	22	28	-2----	6132	WBR
* NBT	6140	1800	35	13	23	58	1.0	17.0	C	8	38	36	52	--3---	6140	NBT *
NBL	6141	1300	35	102	520	20	1.0	13.4	B	2	38	36	52	--3---	6141	NBL
NBR	6142	-	-	403	698	58	1.0	17.0	C	-	38	36	52	--3---	6142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1669 WEIGHTED AVERAGE DELAY = 20.2 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .57/A WEIGHTED AVERAGE DELAY = 20.8 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 62 - I-10 E/B @ MT VERNON AVE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	6210	3600	35	687	2680	26	1.0	2.8	A	2	69	67	0	1-----	6210	EBT
EBL	6211	800	35	529	596	89	1.0	18.0	C	10	69	67	0	1-----	6211	EBL
* SBL	6221	1700	35	321	359	89	1.0	43.6	E+	8	21	19	69	-2----	6221	SBL *
SBR	6222	1800	35	258	380	68	1.0	28.4	D+	6	21	19	69	-2----	6222	SBR
* WBT	6230	1800	35	921	1023	90	1.0	13.4	B	23	69	67	0	1-----	6230	WBT *
WBR	6232	-	-	285	317	90	1.0	13.4	B	-	69	67	0	1-----	6232	WBR

INTERSECTION SUMMARY : TOTAL FLOW = 3001 WEIGHTED AVERAGE DELAY = 16.3 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .90/D WEIGHTED AVERAGE DELAY = 19.7 DELAY LOS = C SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 63 - "M" STREET @ FOGG STREET C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	6310	1800	35	211	1489	14	1.0	.7	A	1	80	78	0	1-----	6310	EBT	*
	EBR	6312	-	-	10	71	14	1.0	.7	A	-	80	78	0	1-----	6312	EBR	
	WBT	6330	1800	35	203	1487	14	1.0	.7	A	1	80	78	0	1-----	6330	WBT	
	WBL	6331	-	-	10	73	14	1.0	.7	A	-	80	78	0	1-----	6331	WBL	
*	NBL	6341	1700	35	10	76	13	1.0	28.8	D+	0	10	8	80	-2----	6341	NBL	*
	NBR	6342	-	-	10	76	13	1.0	28.8	D+	-	10	8	80	-2----	6342	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 454 WEIGHTED AVERAGE DELAY = 1.9 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .14/A WEIGHTED AVERAGE DELAY = 3.0 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 64 - "M" STREET @ MT VERNON AVENU C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBL	6411	1700	35	47	227	21	1.0	26.5	D+	1	14	12	0	1-----	6411	EBL	
*	EBR	6412	1800	35	207	240	86	1.0	47.6	E	5	14	12	0	1-----	6412	EBR	*
*	SBT	6420	1800	35	955	1160	82	1.0	12.9	B	18	60	58	30	--3---	6420	SBT	*
	SBR	6422	1800	35	64	1160	6	1.0	4.5	A	1	60	58	30	--3---	6422	SBR	
	NBT	6440	1800	35	1152	1480	78	1.0	5.0	B	14	76	74	14	-23---	6440	NBT	
*	NBL	6441	1700	35	219	264	83	1.0	41.6	E+	5	16	14	14	-2----	6441	NBL	*

INTERSECTION SUMMARY : TOTAL FLOW = 2644 WEIGHTED AVERAGE DELAY = 14.6 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .83/D WEIGHTED AVERAGE DELAY = 22.7 DELAY LOS = C SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 65 - COOLEY DRIVE @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92.

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	6510	1800	35	50	116	43	1.0	18.1	C	5	32	30	0	1-----	6510	EBT *
EBL	6511	-	-	101	235	43	1.0	18.1	C	-	32	30	0	1-----	6511	EBL
EBR	6512	-	-	107	249	43	1.0	18.1	C	-	32	30	0	1-----	6512	EBR
* SBT	6520	5400	35	884	2016	44	1.0	15.5	C	5	37	35	53	--3---	6520	SBT *
* SBL	6521	1700	35	158	359	44	1.0	24.1	C	3	21	19	32	-2----	6521	SBL *
SBR	6522	-	-	37	84	44	1.0	15.5	C	-	37	35	53	--3---	6522	SBR
WBT	6530	1800	35	21	600	3	1.0	15.4	C	0	32	30	0	1-----	6530	WBT
WBL	6531	1300	35	132	433	30	1.0	17.1	C	2	32	30	0	1-----	6531	WBL
WBR	6532	1800	35	166	600	28	1.0	16.8	C	3	32	30	0	1-----	6532	WBR
NBT	6540	5400	35	732	1761	42	1.0	15.4	C	5	37	35	53	--3---	6540	NBT
NBL	6541	1700	35	118	359	33	1.0	23.1	C	2	21	19	32	-2----	6541	NBL
NBR	6542	-	-	141	339	42	1.0	15.4	C	-	37	35	53	--3---	6542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2647   WEIGHTED AVERAGE DELAY = 16.7   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .44/A   WEIGHTED AVERAGE DELAY = 17.0   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 66 - SAN ANTONIO DRI @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	6610	1800	35	10	25	41	1.0	16.9	C	5	34	32	0	1-----	6610	EBT *
EBL	6611	-	-	250	615	41	1.0	16.9	C	-	34	32	0	1-----	6611	EBL
EBR	6612	1800	35	31	640	5	1.0	14.5	B	1	34	32	0	1-----	6612	EBR
* SBT	6620	5400	35	1095	2694	41	1.0	7.3	B	5	56	54	34	-2----	6620	SBT *
SBL	6621	1300	35	87	780	11	1.0	5.9	B	1	56	54	34	-2----	6621	SBL
SBR	6622	-	-	222	546	41	1.0	7.3	B	-	56	54	34	-2----	6622	SBR
WBT	6630	1800	35	10	45	22	1.0	15.5	C	2	34	32	0	1-----	6630	WBT
WBL	6631	-	-	60	270	22	1.0	15.5	C	-	34	32	0	1-----	6631	WBL
WBR	6632	-	-	72	325	22	1.0	15.5	C	-	34	32	0	1-----	6632	WBR
NBT	6640	5400	35	740	3008	25	1.0	6.5	B	3	56	54	34	-2----	6640	NBT
NBL	6641	1300	35	78	780	10	1.0	5.8	B	1	56	54	34	-2----	6641	NBL
NBR	6642	-	-	57	232	25	1.0	6.5	B	-	56	54	34	-2----	6642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2712   WEIGHTED AVERAGE DELAY = 8.4   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .41/A   WEIGHTED AVERAGE DELAY = 8.9   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

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INTERSECTION # 67 - CENTER POINT DR @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	6710	1800	35	10	47	21	1.0	23.5	C	2	19	17	0	1-----	6710	EBT	
	EBL	6711	-	-	14	65	21	1.0	23.5	C	-	19	17	0	1-----	6711	EBL	
	EBR	6712	-	-	49	228	21	1.0	23.5	C	-	19	17	0	1-----	6712	EBR	
*	SBT	6720	5400	35	1170	4095	29	1.0	2.4	A	2	71	69	19	-2----	6720	SBT	*
	SBL	6721	1400	35	22	1073	2	1.0	1.9	A	0	71	69	19	-2----	6721	SBL	
	SBR	6722	-	-	13	45	29	1.0	2.4	A	-	71	69	19	-2----	6722	SBR	
*	WBT	6730	1800	35	10	35	29	1.0	24.0	C	2	19	17	0	1-----	6730	WBT	*
	WBL	6731	-	-	70	243	29	1.0	24.0	C	-	19	17	0	1-----	6731	WBL	
	WBR	6732	-	-	18	62	29	1.0	24.0	C	-	19	17	0	1-----	6732	WBR	
	NBT	6740	5400	35	856	3616	24	1.0	2.3	A	2	71	69	19	-2----	6740	NBT	
	NBL	6741	1300	35	101	997	10	1.0	2.0	A	1	71	69	19	-2----	6741	NBL	
	NBR	6742	-	-	124	524	24	1.0	2.3	A	-	71	69	19	-2----	6742	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 2457   WEIGHTED AVERAGE DELAY = 3.8   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .29/A   WEIGHTED AVERAGE DELAY = 4.1   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 68 - WASHINGTON ST W @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	6810	1800	35	586	460	127**	1.0	206.1	F	25	25	23	0	1-----	6810	EBT	*
	EBL	6811	1700	35	130	434	30	1.0	20.7	C	3	25	23	0	1-----	6811	EBL	
	EBR	6812	1800	35	190	1800	11	1.0	.0	A	0	90	90	0	1234--	6812	EBR	
*	SBT	6820	1800	35	261	200	130**	1.0	256.9	F	13	12	10	78	---4--	6820	SBT	*
*	SBL	6821	1700	35	838	642	130**	1.0	224.7	F	42	36	34	42	--3---	6821	SBL	*
	SBR	6822	1800	35	124	1800	7	1.0	.0	A	0	90	90	0	1234--	6822	SBR	
*	WBT	6830	1800	35	378	300	126**	1.0	206.3	F	14	17	15	25	-2----	6830	WBT	*
	WBL	6831	1700	35	31	283	11	1.0	24.2	C	1	17	15	25	-2----	6831	WBL	
	WBR	6832	1800	35	545	1800	30	1.0	.0	A	0	90	90	0	1234--	6832	WBR	
	NBT	6840	3600	35	266	400	66	1.0	32.2	D	3	12	10	78	---4--	6840	NBT	
	NBL	6841	1700	35	265	642	41	1.0	16.0	C	5	36	34	42	--3---	6841	NBL	
	NBR	6842	1800	35	986	1800	55	1.0	.3	A	0	90	90	0	1234--	6842	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 4600   WEIGHTED AVERAGE DELAY = 102.3   DELAY LOS = F   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = 1.29/F   WEIGHTED AVERAGE DELAY = 220.1   DELAY LOS = F   SYSTEM (BG) OFFSET = 86

<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 69 - I-215 N/B OFF R @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	6911	1700	35	563	694	81	1.0	19.9	C	14	45	43	0	1-----	6911	EBL *
EBR	6912	-	-	96	118	81	1.0	19.9	C	-	45	43	0	1-----	6912	EBR
SBT	6920	1800	35	429	597	72	1.0	16.4	C	12	45	43	45	-2----	6920	SBT
SBR	6922	-	-	189	263	72	1.0	16.4	C	-	45	43	45	-2----	6922	SBR
* NBT	6940	1800	35	356	431	83	1.0	20.4	C	15	45	43	45	-2----	6940	NBT *
NBL	6941	-	-	355	429	83	1.0	20.4	C	-	45	43	45	-2----	6941	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 1988   WEIGHTED AVERAGE DELAY = 19.0   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .82/D   WEIGHTED AVERAGE DELAY = 20.2   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 70 - WASHINGTON ST E @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	7010	3600	35	1487	1600	93**	1.0	25.8	D+	17	42	40	13	-2----	7010	EBT *
EBR	7012	1800	35	648	1800	36	1.0	.1	A	0	90	90	0	123---	7012	EBR
WBT	7030	3600	35	1484	2120	70	1.0	10.7	B	12	55	53	0	12----	7030	WBT
* WBL	7031	1700	35	194	208	93**	1.0	62.6	F	5	13	11	0	1-----	7031	WBL *
NBL	7041	1700	35	486	623	78	1.0	23.8	C	11	35	33	55	--3---	7041	NBL
* NBR	7042	1800	35	602	660	91**	1.0	33.5	D	14	35	33	55	--3---	7042	NBR *

INTERSECTION SUMMARY : TOTAL FLOW = 4901   WEIGHTED AVERAGE DELAY = 20.0   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .92/E   WEIGHTED AVERAGE DELAY = 31.0   DELAY LOS = D   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 71 - WASHINGTON STRE & BLUFF ROAD — C.E. UPDATE — YEAR 2010 BASE STREET NETWORK — PM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	7110	5400	35	2142	2954	73	1.0	11.6	B	13	53	51	8	-2----	7110	EBT	*
	EBL	7111	1700	35	22	113	19	1.0	30.3	D	1	8	6	0	1-----	7111	EBL	
	EBR	7112	-	-	77	106	73	1.0	11.6	B	-	53	51	8	-2----	7112	EBR	
*	SBT	7120	1800	35	10	13	75	1.0	53.6	E	1	6	4	61	--3---	7120	SBT	*
	SBL	7121	-	-	29	39	75	1.0	53.6	E	-	6	4	61	--3---	7121	SBL	
	SBR	7122	-	-	21	28	75	1.0	53.6	E	-	6	4	61	--3---	7122	SBR	
	WBT	7130	5400	35	1464	3039	48	1.0	9.0	B	7	53	51	8	-2----	7130	WBT	
*	WBL	7131	1700	35	84	113	74	1.0	46.7	E	2	8	6	0	1-----	7131	WBL	*
	WBR	7132	-	-	10	21	48	1.0	9.0	B	-	53	51	8	-2----	7132	WBR	
*	NBT	7140	1800	35	10	14	71	1.0	28.2	D+	7	23	21	67	---4--	7140	NBT	*
	NBL	7141	-	-	290	406	71	1.0	28.2	D+	-	23	21	67	---4--	7141	NBL	
	NBR	7142	1800	35	114	420	27	1.0	21.6	C	2	23	21	67	---4--	7142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 4273 WEIGHTED AVERAGE DELAY = 13.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .72/C WEIGHTED AVERAGE DELAY = 15.5 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 72 - WASHINGTON STRE & MEADOW LANE — C.E. UPDATE — YEAR 2010 BASE STREET NETWORK — PM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	7210	3600	35	1606	2040	79	1.0	13.2	B	15	53	51	22	-2----	7210	EBT	
*	EBL	7211	1700	35	303	378	80	1.0	33.6	D	7	22	20	0	1-----	7211	EBL	*
	EBR	7212	1800	35	108	1020	11	1.0	6.9	B	1	53	51	22	-2----	7212	EBR	
*	SBT	7220	1800	35	10	12	84	1.0	43.7	E+	5	15	13	75	--3---	7220	SBT	*
	SBL	7221	-	-	30	36	84	1.0	43.7	E+	-	15	13	75	--3---	7221	SBL	
	SBR	7222	-	-	179	213	84	1.0	43.7	E+	-	15	13	75	--3---	7222	SBR	
*	WBT	7230	3600	35	1610	1994	81	1.0	13.8	B	16	53	51	22	-2----	7230	WBT	*
	WBL	7231	1700	35	77	378	20	1.0	21.7	C	2	22	20	0	1-----	7231	WBL	
	WBR	7232	-	-	37	46	81	1.0	13.8	B	-	53	51	22	-2----	7232	WBR	
	NBT	7240	1800	35	13	22	60	1.0	30.4	D	4	15	13	75	--3---	7240	NBT	
	NBL	7241	-	-	88	146	60	1.0	30.4	D	-	15	13	75	--3---	7241	NBL	
	NBR	7242	-	-	56	93	60	1.0	30.4	D	-	15	13	75	--3---	7242	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 4117 WEIGHTED AVERAGE DELAY = 17.2 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .81/D WEIGHTED AVERAGE DELAY = 19.6 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 73 - WASHINGTON STRE @ COOLEY DR/BARTO   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	7310	3600	35	1502	1320	114**	1.0	97.8	F	24	35	33	28	-2----	7310	EBT *
EBL	7311	1700	35	143	491	29	1.0	19.0	C	3	28	26	0	1-----	7311	EBL
EBR	7312	1800	35	25	1800	1	1.0	.0	A	0	90	90	0	1234--	7312	EBR
SBT	7320	3600	35	185	490	38	1.0	22.8	C	3	22	20	68	---4--	7320	SBT
* SBL	7321	1700	35	71	57	125**	1.0	282.1	F	2	5	3	63	--3---	7321	SBL *
SBR	7322	-	-	117	310	38	1.0	22.8	C	-	22	20	68	---4--	7322	SBR
WBT	7330	5400	35	1268	1980	64	1.0	18.5	C	8	35	33	28	-2----	7330	WBT
* WBL	7331	1700	35	549	491	112**	1.0	102.1	F	23	28	26	0	1-----	7331	WBL *
WBR	7332	1800	35	29	660	4	1.0	14.0	B	0	35	33	28	-2----	7332	WBR
* NBT	7340	3600	35	177	158	112**	1.0	98.4	F	22	22	20	68	---4--	7340	NBT *
NBL	7341	1700	35	33	57	58	1.0	42.6	E+	1	5	3	63	--3---	7341	NBL
NBR	7342	-	-	720	642	112**	1.0	98.4	F	-	22	20	68	---4--	7342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4819   WEIGHTED AVERAGE DELAY = 71.8   DELAY LOS = F   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.13/F   WEIGHTED AVERAGE DELAY = 103.1   DELAY LOS = F   SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

INTERSECTION # 74 - WASHINGTON STRE @ MOHAVE DRIVE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK   PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	7410	3600	35	1788	2653	67	1.0	4.1	A	11	72	70	9	-2----	7410	EBT *
EBL	7411	1700	35	26	132	20	1.0	29.7	D+	1	9	7	0	1-----	7411	EBL
EBR	7412	-	-	99	147	67	1.0	4.1	A	-	72	70	9	-2----	7412	EBR
* SBT	7420	1800	35	10	14	70	1.0	40.7	E+	2	9	7	81	--3---	7420	SBT *
SBL	7421	-	-	64	91	70	1.0	40.7	E+	-	9	7	81	--3---	7421	SBL
SBR	7422	-	-	24	34	70	1.0	40.7	E+	-	9	7	81	--3---	7422	SBR
WBT	7430	3600	35	1817	2715	67	1.0	4.0	A	10	72	70	9	-2----	7430	WBT
* WBL	7431	1700	35	83	132	63	1.0	37.1	D-	2	9	7	0	1-----	7431	WBL *
WBR	7432	-	-	57	85	67	1.0	4.0	A	-	72	70	9	-2----	7432	WBR
NBT	7440	1800	35	11	22	49	1.0	32.6	D	2	9	7	81	--3---	7440	NBT
NBL	7441	-	-	58	118	49	1.0	32.6	D	-	9	7	81	--3---	7441	NBL
NBR	7442	1800	35	51	140	36	1.0	30.7	D	1	9	7	81	--3---	7442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4088   WEIGHTED AVERAGE DELAY = 6.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .67/B   WEIGHTED AVERAGE DELAY = 7.1   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
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INTERSECTION # 75 - WASHINGTON STRE @ RECHE CANYON RO C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	7510	3600	35	998	1640	61	1.0	14.6	B	9	43	41	24	-2----	7510	EBT
EBL	7511	1700	35	257	416	62	1.0	25.1	D+	6	24	22	0	1-----	7511	EBL
EBR	7512	1800	35	649	1800	36	1.0	.1	A	0	90	90	0	123---	7512	EBR
* SBT	7520	3600	35	690	701	98**	1.0	47.7	E	10	23	21	67	--3---	7520	SBT *
SBL	7521	-	-	137	139	98**	1.0	47.7	E	-	23	21	67	--3---	7521	SBL
SBR	7522	1800	35	83	1800	5	1.0	.0	A	0	90	90	0	123---	7522	SBR
* WBT	7530	3600	35	1571	1640	96**	1.0	28.8	D+	18	43	41	24	-2----	7530	WBT *
* WBL	7531	1700	35	406	416	98**	1.0	55.4	E-	10	24	22	0	1-----	7531	WBL *
WBR	7532	1800	35	232	1800	13	1.0	.0	A	0	90	90	0	123---	7532	WBR
NBT	7540	3600	35	307	428	72	1.0	26.3	D+	7	23	21	67	--3---	7540	NBT
NBL	7541	-	-	295	412	72	1.0	26.3	D+	-	23	21	67	------	7541	NBL
NBR	7542	1800	35	223	1800	12	1.0	.0	A	0	90	90	.0	12----	7542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 5848 WEIGHTED AVERAGE DELAY = 24.6 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .97/E WEIGHTED AVERAGE DELAY = 38.2 DELAY LOS = D- SYSTEM (BG) OFFSET = 86

INTERSECTION # 76 - REDLANDS BLVD @ HUNTS LANE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	7610	3600	35	126	777	16	1.0	16.6	C	1	31	29	13	-2----	7610	EBT
EBL	7611	1700	35	109	208	52	1.0	30.2	D	2	13	11	0	1-----	7611	EBL
EBR	7612	-	-	62	383	16	1.0	16.6	C	-	31	29	13	-2----	7612	EBR
* SBT	7620	2650	35	820	626	131**	1.0	230.4	F	23	26	24	44	--3---	7620	SBT *
SBL	7621	2650	35	710	707	100**	1.0	53.7	E	11	26	24	44	--3---	7621	SBL
SBR	7622	-	-	106	81	131**	1.0	230.4	F	-	26	24	44	--3---	7622	SBR
WBT	7630	1800	35	90	580	16	1.0	16.6	C	2	31	29	13	-2----	7630	WBT
* WBL	7631	1700	35	269	208	129**	1.0	246.4	F	12	13	11	0	1-----	7631	WBL *
* WBR	7632	1800	35	749	580	129**	1.0	215.5	F	28	31	29	13	-2----	7632	WBR *
* NBT	7640	3600	35	735	554	133**	1.0	246.0	F	24	20	18	70	---4--	7640	NBT *
NBL	7641	1700	35	21	340	6	1.0	22.2	C	0	20	18	70	---4--	7641	NBL
NBR	7642	-	-	220	166	133**	1.0	246.0	F	-	20	18	70	---4--	7642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4017 WEIGHTED AVERAGE DELAY = 179.9 DELAY LOS = F CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.31/F WEIGHTED AVERAGE DELAY = 233.2 DELAY LOS = F SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY V[illegible]S MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 77 - COOLEY LANE @ HUNTS LANE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	7711	1700	35	495	623	79	1.0	24.5	C	11	35	33	0	1-----	7711	EBL *
EBR	7712	1800	35	79	660	12	1.0	14.4	B	1	35	33	0	1-----	7712	EBR
* SBT	7720	1800	35	829	1060	78	1.0	13.6	B	16	55	53	35	-2----	7720	SBT *
SBR	7722	1800	35	508	1060	48	1.0	8.4	B	7	55	53	35	-2----	7722	SBR
NBT	7740	1800	35	419	1060	40	1.0	7.7	B	6	55	53	35	-2----	7740	NBT
NBL	7741	1300	35	59	766	8	1.0	6.1	B	1	55	53	35	-2----	7741	NBL

INTERSECTION SUMMARY :   TOTAL FLOW = 2389   WEIGHTED AVERAGE DELAY = 13.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .79/C   WEIGHTED AVERAGE DELAY = 17.7   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 78 - WASHINGTON STRE @ HUNTS LANE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	7810	1800	35	1396	1620	86	1.0	5.3	B	15	83	81	0	12----	7810	EBT
* EBL	7811	1700	35	387	264	146**	1.0	413.6	F	18	16	14	0	1-----	7811	EBL *
* SBL	7821	1700	35	137	94	145**	1.0	447.5	F	7	7	5	83	--3---	7821	SBL *
SBR	7822	1800	35	773	1800	43	1.0	.1	A	0	90	90	0	123---	7822	SBR
* WBT	7830	1800	35	1977	1300	152**	1.0	404.8	F	99	67	65	16	-2----	7830	WBT *
WBR	7832	1800	35	232	1800	13	1.0	.0	A	0	90	90	0	123---	7832	WBR

INTERSECTION SUMMARY :   TOTAL FLOW = 4902   WEIGHTED AVERAGE DELAY = 209.9   DELAY LOS = F   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = 1.51/F   WEIGHTED AVERAGE DELAY = 408.5   DELAY LOS = F   SYSTEM (BG) OFFSET = 86
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 79 - WASHINGTON STRE @ WEIR ROAD C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	7910	3600	35	1357	2560	53	1.0	4.8	A	7	66	64	0	12----	7910	EBT	
*	EBL	7911	1700	35	176	208	85	1.0	48.1	E	4	13	11	0	1-----	7911	EBL	*
	SBL	7921	1700	35	34	416	8	1.0	19.9	C	1	24	22	66	--3---	7921	SBL	
*	SBR	7922	1800	35	399	440	91**	1.0	41.6	E+	10	24	22	66	--3---	7922	SBR	*
*	WBT	7930	3600	35	1810	2040	89	1.0	17.0	C	19	53	51	13	-2----	7930	WBT	*
	WBR	7932	1800	35	20	1020	2	1.0	6.5	B	0	53	51	13	-2----	7932	WBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3796 WEIGHTED AVERAGE DELAY = 16.6 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 0.89/D WEIGHTED AVERAGE DELAY = 23.4 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 80 - WASHINGTON STRE @ WATERMAN AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	8010	3600	35	1078	2021	53	1.0	9.5	B	8	53	51	0	12----	8010	EBT	
*	EBL	8011	1700	35	402	340	118**	1.0	148.1	F	18	20	18	0	1-----	8011	EBL	*
	EBR	8012	-	-	10	19	53	1.0	9.5	B	-	53	51	0	12----	8012	EBR	
	SBT	8020	1800	35	11	700	2	1.0	12.9	B	0	37	35	53	--3---	8020	SBT	
*	SBL	8021	1700	35	746	661	113**	1.0	99.8	F	37	37	35	53	--3---	8021	SBL	*
	SBR	8022	1800	35	357	1100	32	1.0	6.5	B	4	57	55	0	1-3---	8022	SBR	
*	WBT	8030	3600	35	1448	1240	117**	1.0	116.3	F	25	33	31	20	-2----	8030	WBT	*
	WBL	8031	1700	35	10	586	2	1.0	14.8	B	0	33	31	20	-2----	8031	WBL	
	WBR	8032	1800	35	385	620	62	1.0	20.2	C	8	33	31	20	-2----	8032	WBR	
	NBT	8040	1800	35	14	288	5	1.0	13.0	B	1	37	35	53	--3---	8040	NBT	
	NBL	8041	-	-	10	206	5	1.0	13.0	B	-	37	35	53	--3---	8041	NBL	
	NBR	8042	-	-	10	206	5	1.0	13.0	B	-	37	35	53	--3---	8042	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 4481 WEIGHTED AVERAGE DELAY = 72.2 DELAY LOS = F CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = 1.15/F WEIGHTED AVERAGE DELAY = 116.5 DELAY LOS = F SYSTEM (BG) OFFSET = 86

<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 81 - WASHINGTON STRE @ I215 N/B ON RAM C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	8110	5400	35	1198	5400	22	1.0	.0	A	0	90	90	0	12----	8110	EBT *
EBL	8111	1700	35	166	812	20	1.0	10.4	B	2	45	43	0	1-----	8111	EBL
* WBT	8130	5400	35	782	1994	39	1.0	11.6	B	5	45	43	45	-2----	8130	WBT *
WBR	8132	-	-	230	586	39	1.0	11.6	B	-	45	43	45	-2----	8132	WBR

INTERSECTION SUMMARY : TOTAL FLOW = 2376 WEIGHTED AVERAGE DELAY = 5.7 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .28/A WEIGHTED AVERAGE DELAY = 5.3 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 82 - OLIVE STREET @ MERIDIAN AVENUE C.E. UPDATE YEAR 2010 BASE STREET NETWORK PM .Peak Period 08/12/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	8210	1800	35	314	531	59	1.0	10.8	B	10	52	50	0	1-----	8210	EBT *
EBL	8211	-	-	200	338	59	1.0	10.8	B	-	52	50	0	1-----	8211	EBL
EBR	8212	-	-	77	130	59	1.0	10.8	B	-	52	50	0	1-----	8212	EBR
SBT	8220	1800	35	101	364	28	1.0	13.9	B	3	38	36	52	-2----	8220	SBT
SBL	8221	-	-	36	130	28	1.0	13.9	B	-	38	36	52	-2----	8221	SBL
SBR	8222	-	-	63	227	28	1.0	13.9	B	-	38	36	52	-2----	8222	SBR
WBT	8230	1800	35	247	823	30	1.0	8.2	B	4	52	50	0	1-----	8230	WBT
WBL	8231	-	-	10	33	30	1.0	8.2	B	-	52	50	0	1-----	8231	WBL
WBR	8232	-	-	43	143	30	1.0	8.2	B	-	52	50	0	1-----	8232	WBR
* NBT	8240	1800	35	328	556	59	1.0	17.2	C	8	38	36	52	-2----	8240	NBT *
NBL	8241	-	-	87	147	59	1.0	17.2	C	-	38	36	52	-2----	8241	NBL
NBR	8242	-	-	10	17	59	1.0	17.2	C	-	38	36	52	-2----	8242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1516 WEIGHTED AVERAGE DELAY = 12.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .59/A WEIGHTED AVERAGE DELAY = 13.5 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 83 - VALLEY BOULEVRA @ MERIDIAN AVENUE — C.E. UPDATE — YEAR 2010 BASE STREET NETWORK — PM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	8310	3600	35	1389	2520	55	1.0	5.3	B	8	65	63	0	1-----	8310	EBT	
	EBL	8311	1700	35	35	1190	3	1.0	3.2	A	0	65	63	0	1-----	8311	EBL	
*	SBL	8321	1700	35	261	379	69	1.0	26.3	D+	7	25	23	65	-2----	8321	SBL	*
	SBR	8322	-	-	38	55	69	1.0	26.3	D+	-	25	23	65	-2----	8322	SBR	
*	WBT	8330	3600	35	1429	2074	69	1.0	6.6	B	12	65	63	0	1-----	8330	WBT	*
	WBR	8332			307	446	69	1.0	6.6	B	-	65	63	0	1-----	8332	WBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3459 WEIGHTED AVERAGE DELAY = 7.7 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .69/B WEIGHTED AVERAGE DELAY = 9.5 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 84 - AGUA MANSA ROAD @ RANCHO AVENUE — C.E. UPDATE — YEAR 2010 BASE STREET NETWORK — PM Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	8410	1800	35	307	365	84	1.0	18.1	C	17	51	49	0	1-----	8410	EBT	*
	EBL	8411	-	-	333	396	84	1.0	18.1	C	-	51	49	0	1-----	8411	EBL	
	EBR	8412	-	-	184	219	84	1.0	18.1	C	-	51	49	0	1-----	8412	EBR	
*	SBT	8420	3600	35	905	1094	83	1.0	21.0	C	13	39	37	51	-2----	8420	SBT	*
	SBL	8421	1400	35	10	576	2	1.0	12.0	B	0	39	37	51	-2----	8421	SBL	
	SBR	8422	-	-	319	386	83	1.0	21.0	C	-	39	37	51	-2----	8422	SBR	
	WBT	8430	1800	35	162	872	19	1.0	7.9	B	2	51	49	0	1-----	8430	WBT	
	WBL	8431	-	-	10	54	19	1.0	7.9	B	-	51	49	0	1-----	8431	WBL	
	WBR	8432	-	-	10	54	19	1.0	7.9	B	-	51	49	0	1-----	8432	WBR	
	NBT	8440	3600	35	929	1464	63	1.0	16.8	C	9	39	37	51	-2----	8440	NBT	
	NBL	8441	1300	35	106	534	20	1.0	13.0	B	2	39	37	51	-2----	8441	NBL	
	NBR	8442	-	-	10	16	63	1.0	16.8	C	-	39	37	51	-2----	8442	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3285 WEIGHTED AVERAGE DELAY = 18.1 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .83/D WEIGHTED AVERAGE DELAY = 19.8 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 85 - SLOVER AVENUE @ PEPPER AVENUE   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBL	8511	1700	35	703	913	77	1.0	15.2	C	14	51	49	0	1-----	8511	EBL	*
	EBR	8512	-	-	10	13	77	1.0	15.2	C	-	51	49	0	1-----	8512	EBR	
*	SBT	8520	1800	35	10	13	77	1.0	21.2	C	12	39	37	51	-2----	8520	SBT	*
	SBR	8522	-	-	563	727	77	1.0	21.2	C	-	39	37	51	-2----	8522	SBR	
	NBT	8540	1800	35	10	370	3	1.0	12.0	B	0	39	37	51	-2----	8540	NBT	
	NBL	8541	-	-	10	370	3	1.0	12.0	B	-	39	37	51	-2----	8541	NBL	

INTERSECTION SUMMARY :   TOTAL FLOW = 1306   WEIGHTED AVERAGE DELAY = 17.8   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .77/C   WEIGHTED AVERAGE DELAY = 17.9   DELAY LOS = C · SYSTEM (BG) OFFSET = 86

INTERSECTION # 86 - AGUA MANSA ROAD @ RIVERSIDE AVENU   C.E. UPDATE   YEAR 2010 BASE STREET NETWORK AM .Peak Period 08/12/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	8610	1800	35	176	214	82	1.0	29.5	D+	10	29	27	0	1-----	8610	EBT	*
	EBL	8611	-	-	235	286	82	1.0	29.5	D+	-	29	27	0	1-----	8611	EBL	
	EBR	8612	-	-	33	40	82	1.0	29.5	D+	-	29	27	0	1-----	8612	EBR	
*	SBT	8620	3600	35	1749	2146	81	1.0	10.5	B	17	61	59	29	-2----	8620	SBT	*
	SBL	8621	1400	35	12	918	1	1.0	4.1	A	0	61	59	29	-2----	8621	SBL	
	SBR	8622	-	-	174	214	81	1.0	10.5	B	-	61	59	29	-2----	8622	SBR	
	WBT	8630	1800	35	207	256	81	1.0	28.7	D+	10	29	27	0	1-----	8630	WBT	
	WBL	8631	-	-	135	167	81	1.0	28.7	D+	-	29	27	0	1-----	8631	WBL	
	WBR	8632	-	-	95	117	81	1.0	28.7	D+	-	29	27	0	1-----	8632	WBR	
	NBT	8640	3600	35	1767	2300	77	1.0	9.4	B	15	61	59	29	-2----	8640	NBT	
	NBL	8641	1400	35	27	918	3	1.0	4.2	A	0	61	59	29	-2----	8641	NBL	
	NBR	8642	-	-	46	60	77	1.0	9.4	B	-	61	59	29	-2----	8642	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 4656   WEIGHTED AVERAGE DELAY = 13.5   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .82/D   WEIGHTED AVERAGE DELAY = 14.1   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

With Project - A.M. Peak Hour

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 1 - RANDALL AVENUE @ PEPPER AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

	APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH	
	(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)	
	EBT	110	1800	35	12	31	39	1.0	26.5	D+	2	16	14	0	1-----	110	EBT	
	EBL	111	-	-	69	176	39	1.0	26.5	D+	-	16	14	0	1-----	111	EBL	
	EBR	112	-	-	29	74	39	1.0	26.5	D+	-	16	14	0	1-----	112	EBR	
*	SBT	120	3600	35	1350	2830	48	1.0	2.3	A	5	74	72	16	-2----	120	SBT	*
	SBL	121	1300	35	40	1040	4	1.0	1.4	A	0	74	72	16	-2----	121	SBL	
	SBR	122	-	-	24	50	48	1.0	2.3	A	-	74	72	16	-2----	122	SBR	
*	WBT	130	1800	35	20	42	47	1.0	27.3	D+	3	16	14	0	1-----	130	WBT	*
	WBL	131	-	-	101	214	47	1.0	27.3	D+	-	16	14	0	1-----	131	WBL	
	WBR	132	-	-	11	23	47	1.0	27.3	D+	-	16	14	0	1-----	132	WBR	
	NBT	140	3600	35	584	2832	21	1.0	1.7	A	1	74	72	16	-2----	140	NBT	
	NBL	141	1300	35	43	1040	4	1.0	1.4	A	0	74	72	16	-2----	141	NBL	
	NBR	142	-	-	10	48	21	1.0	1.7	A	-	74	72	16	-2----	142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2293   WEIGHTED AVERAGE DELAY = 4.7   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .48/A   WEIGHTED AVERAGE DELAY = 4.5   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 2 - SAN BERNADINO A @ PEPPER AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

	APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH	
	(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)	
*	EBT	210	3600	35	414	645	64	1.0	22.3	C	7	28	26	0	1-----	210	EBT	*
	EBL	211	1300	35	112	376	30	1.0	19.1	C	2	28	26	0	1-----	211	EBL	
	EBR	212	-	-	254	395	64	1.0	22.3	C	-	28	26	0	1-----	212	EBR	
*	SBT	220	5400	35	1457	2204	66	1.0	16.4	C	10	40	38	50	--3---	220	SBT	*
*	SBL	221	1700	35	246	378	65	1.0	27.1	D+	5	22	20	28	-2----	221	SBL	*
	SBR	222	-	-	50	76	66	1.0	16.4	C	-	40	38	50	--3---	222	SBR	
	WBT	230	1800	35	194	520	37	1.0	19.6	C	4	28	26	0	1-----	230	WBT	
	WBL	231	1300	35	77	376	21	1.0	18.5	C	1	28	26	0	1-----	231	WBL	
	WBR	232	1800	35	66	520	13	1.0	18.0	C	1	28	26	0	1-----	232	WBR	
	NBT	240	5400	35	492	2217	22	1.0	12.6	B	2	40	38	50	--3---	240	NBT	
	NBL	241	3200	35	47	711	7	1.0	21.0	C	0	22	20	28	-2----	241	NBL	
	NBR	242	-	-	14	63	22	1.0	12.6	B	-	40	38	50	--3---	242	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3423   WEIGHTED AVERAGE DELAY = 18.2   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .65/B   WEIGHTED AVERAGE DELAY = 19.1   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 3 - VALLEY BLVD @ WILDROSE AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	310	3600	35	406	1600	25	1.0	11.9	B	3	42	40	0	12----	310	EBT *
EBL	311	3200	35	23	107	22	1.0	32.4	D	0	5	3	0	1-----	311	EBL
* SBL	321	3200	35	477	1636	29	1.0	9.7	B	3	48	46	42	--3---	321	SBL *
SBR	322	1800	35	80	920	9	1.0	8.6	B	1	48	46	42	--3---	322	SBR
WBT	330	3600	35	330	1400	24	1.0	14.1	B	2	37	35	5	-2----	330	WBT
WBR	332	1800	35	39	700	6	1.0	13.1	B	1	37	35	5	-2----	332	WBR

INTERSECTION SUMMARY : TOTAL FLOW = 1355 WEIGHTED AVERAGE DELAY = 11.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .27/A WEIGHTED AVERAGE DELAY = 10.7 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 4 - VALLEY BLVD @ PEPPER AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	410	3600	35	386	420	92**	1.0	35.4	D-	10	25	23	25	-2----	410	EBT *
EBL	411	3200	35	75	818	9	1.0	19.4	C	0	25	23	0	1-----	411	EBL
EBR	412	-	-	459	500	92**	1.0	35.4	D-	-	25	23	25	-23---	412	EBR
* SBT	420	5400	35	1541	1698	91**	1.0	27.4	D+	13	32	30	58	---4--	420	SBT *
* SBL	421	3200	35	202	213	95**	1.0	66.9	F	2	8	6	50	--3---	421	SBL *
SBR	422	-	-	93	102	91**	1.0	27.4	D+	-	32	30	58	---4--	422	SBR
WBT	430	3600	35	245	498	49	1.0	22.1	C	4	25	23	25	-2----	430	WBT
* WBL	431	3200	35	760	818	93**	1.0	37.7	D-	9	25	23	0	1-----	431	WBL *
WBR	432	-	-	208	422	49	1.0	22.1	C	-	25	23	25	-2----	432	WBR
NBT	440	5400	35	924	1454	64	1.0	19.9	C	8	32	30	58	---4--	440	NBT
NBL	441	3200	35	100	213	47	1.0	32.0	D	1	8	6	50	--3---	441	NBL
NBR	442	-	-	220	346	64	1.0	19.9	C	-	32	30	58	---4--	442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 5213 WEIGHTED AVERAGE DELAY = 29.6 DELAY LOS = D+ CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .92/E WEIGHTED AVERAGE DELAY = 34.0 DELAY LOS = D SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 5 - I-10 W/B @ PEPPER AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* SBT	520	5400	35	2029	2338	87	1.0	14.5	B	18	54	52	5	-2----	520	SBT *
SBR	522	-	-	679	782	87	1.0	14.5	B	-	54	52	5	-2----	522	SBR
WBL	531	1524	35	376	491	77	1.0	26.0	D+	8	31	29	59	--3---	531	WBL
* WBR	532	1976	35	522	637	82	1.0	27.5	D+	12	31	29	59	--3---	532	WBR *
NBT	540	5400	35	743	3420	22	1.0	5.4	B	2	59	57	0	12----	540	NBT
* NBL	541	1700	35	18	57	32	1.0	33.5	D	0	5	3	0	1-----	541	NBL *

INTERSECTION SUMMARY : TOTAL FLOW = 4367 WEIGHTED AVERAGE DELAY = 15.6 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .83/D WEIGHTED AVERAGE DELAY = 16.7 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 6 - I-10 E/B @ PEPPER AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	611	2444	35	257	543	47	1.0	23.7	C	3	22	20	68	--3---	611	EBL *
EBR	612	1056	35	111	235	47	1.0	24.4	C	2	22	20	68	--3---	612	EBR
SBT	620	5400	35	1786	3960	45	1.0	3.7	A	5	68	66	0	12----	620	SBT
* SBL	621	3200	35	751	1600	47	1.0	11.4	B	6	47	45	0	1-----	621	SBL *
* NBT	640	5400	35	495	1055	47	1.0	23.9	C	3	21	19	47	-2----	640	NBT *
NBR	642	-	-	40	85	47	1.0	23.9	C	-	21	19	47	-2----	642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3440 WEIGHTED AVERAGE DELAY = 10.7 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .47/A WEIGHTED AVERAGE DELAY = 17.8 DELAY LOS = C SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 7 - MILL STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	710	3600	35	463	785	59	1.0	22.1	C	6	27	25	12	-2----	710	EBT	*
*	EBL	711	3200	35	213	356	60	1.0	31.1	D	2	12	10	0	1-----	711	EBL	*
	EBR	712	-	-	127	215	59	1.0	22.1	C	-	27	25	12	-2----	712	EBR	
*	SBT	720	3600	35	439	756	58	1.0	20.9	C	6	29	27	61	---4--	720	SBT	*
*	SBL	721	1700	35	215	378	57	1.0	25.3	D+	5	22	20	39	--3---	721	SBL	*
	SBR	722	-	-	188	324	58	1.0	20.9	C	-	29	27	61	---4--	722	SBR	
	WBT	730	3600	35	217	753	29	1.0	19.5	C	3	27	25	12	-2----	730	WBT	
	WBL	731	1700	35	93	189	49	1.0	30.3	D	2	12	10	0	1-----	731	WBL	
	WBR	732	-	-	71	247	29	1.0	19.5	C	-	27	25	12	-2----	732	WBR	
	NBT	740	3600	35	426	804	53	1.0	20.4	C	6	29	27	61	---4--	740	NBT	
	NBL	741	1700	35	152	378	40	1.0	23.2	C	3	22	20	39	--3---	741	NBL	
	NBR	742	-	-	146	276	53	1.0	20.4	C	-	29	27	61	---4--	742	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2750 WEIGHTED AVERAGE DELAY = 22.5 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .58/A WEIGHTED AVERAGE DELAY = 23.2 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 8 - JOHNSTON STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	810	1800	35	26	83	31	1.0	19.2	C	3	28	26	0	1-----	810	EBT	*
	EBL	811	-	-	118	379	31	1.0	19.2	C	-	28	26	0	1-----	811	EBL	
	EBR	812	-	-	18	58	31	1.0	19.2	C	-	28	26	0	1-----	812	EBR	
*	SBT	820	3600	35	713	2266	31	1.0	4.9	A	4	62	60	28	-2----	820	SBT	*
	SBL	821	1300	35	52	867	6	1.0	4.0	A	0	62	60	28	-2----	821	SBL	
	SBR	822	-	-	42	134	31	1.0	4.9	A	-	62	60	28	-2----	822	SBR	
	WBT	830	1800	35	12	40	30	1.0	19.1	C	3	28	26	0	1-----	830	WBT	
	WBL	831	-	-	68	227	30	1.0	19.1	C	-	28	26	0	1-----	831	WBL	
	WBR	832	-	-	76	253	30	1.0	19.1	C	-	28	26	0	1-----	832	WBR	
	NBT	840	3600	35	496	2126	23	1.0	4.5	A	2	62	60	28	-2----	840	NBT	
	NBL	841	1400	35	15	933	2	1.0	3.9	A	0	62	60	28	-2----	841	NBL	
	NBR	842	-	-	64	274	23	1.0	4.5	A	-	62	60	28	-2----	842	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1700 WEIGHTED AVERAGE DELAY = 7.4 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .31/A WEIGHTED AVERAGE DELAY = 7.4 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 9 - CITRUS STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	910	1800	35	12	31	39	1.0	14.8	B	5	38	36	0	1-----	910	EBT *
EBL	911	-	-	40	102	39	1.0	14.8	B	-	38	36	0	1-----	911	EBL
EBR	912	-	-	229	587	39	1.0	14.8	B	-	38	36	0	1-----	912	EBR
* SBT	920	3600	35	765	1959	39	1.0	8.7	B	5	52	50	38	-2----	920	SBT *
SBL	921	1400	35	21	778	3	1.0	6.9	B	0	52	50	38	-2----	921	SBL
SBR	922	-	-	16	41	39	1.0	8.7	B	-	52	50	38	-2----	922	SBR
WBT	930	1800	35	10	58	17	1.0	13.3	B	2	38	36	0	1-----	930	WBT
WBL	931	-	-	97	559	17	1.0	13.3	B	-	38	36	0	1-----	931	WBL
WBR	932	-	-	18	104	17	1.0	13.3	B	-	38	36	0	1-----	932	WBR
NBT	940	3600	35	532	1816	29	1.0	8.1	B	4	52	50	38	-2----	940	NBT
NBL	941	1300	35	54	722	7	1.0	7.1	B	1	52	50	38	-2----	941	NBL
NBR	942	-	-	54	184	29	1.0	8.1	B	-	52	50	38	-2----	942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1848   WEIGHTED AVERAGE DELAY = 9.7   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .39/A   WEIGHTED AVERAGE DELAY = 10.3   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 10 - LAUREL STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	1010	1800	35	17	58	29	1.0	21.7	C	2	23	21	0	1-----	1010	EBT
EBL	1011	-	-	32	109	29	1.0	21.7	C	-	23	21	0	1-----	1011	EBL
EBR	1012	-	-	74	253	29	1.0	21.7	C	-	23	21	0	1-----	1012	EBR
* SBT	1020	3600	35	1025	2553	40	1.0	3.8	A	5	67	65	23	-2----	1020	SBT *
SBL	1021	1300	35	100	939	11	1.0	2.9	A	1	67	65	23	-2----	1021	SBL
SBR	1022	-	-	19	47	40	1.0	3.8	A	-	67	65	23	-2----	1022	SBR
* WBT	1030	1800	35	19	48	40	1.0	22.5	C	3	23	21	0	1-----	1030	WBT *
WBL	1031	-	-	45	114	40	1.0	22.5	C	-	23	21	0	1-----	1031	WBL
WBR	1032	-	-	102	258	40	1.0	22.5	C	-	23	21	0	1-----	1032	WBR
NBT	1040	3600	35	495	2340	21	1.0	3.1	A	2	67	65	23	-2----	1040	NBT
NBL	1041	1400	35	34	1011	3	1.0	2.7	A	0	67	65	23	-2----	1041	NBL
NBR	1042	-	-	55	260	21	1.0	3.1	A	-	67	65	23	-2----	1042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2017   WEIGHTED AVERAGE DELAY = 6.2   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .40/A   WEIGHTED AVERAGE DELAY = 6.4   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 11 - OLIVE STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	1110	1800	35	153	279	55	1.0	19.5	C	7	32	30	0	1-----	1110	EBT	*
	EBL	1111	-	-	56	102	55	1.0	19.5	C	-	32	30	0	1-----	1111	EBL	
	EBR	1112	-	-	120	219	55	1.0	19.5	C	-	32	30	0	1-----	1112	EBR	
*	SBT	1120	3600	35	1144	2111	54	1.0	7.6	B	8	58	56	32	-2----	1120	SBT	*
	SBL	1121	1300	35	49	809	6	1.0	5.1	B	0	58	56	32	-2----	1121	SBL	
	SBR	1122	-	-	70	129	54	1.0	7.6	B	-	58	56	32	-2----	1122	SBR	
	WBT	1130	1800	35	103	240	43	1.0	18.1	C	5	32	30	0	1-----	1130	WBT	
	WBL	1131	-	-	108	252	43	1.0	18.1	C	-	32	30	0	1-----	1131	WBL	
	WBR	1132	-	-	46	107	43	1.0	18.1	C	-	32	30	0	1-----	1132	WBR	
	NBT	1140	3600	35	483	1846	26	1.0	5.9	B	3	58	56	32	-2----	1140	NBT	
	NBL	1141	1300	35	44	809	5	1.0	5.1	B	0	58	56	32	-2----	1141	NBL	
	NBR	1142	-	-	103	394	26	1.0	5.9	B	-	58	56	32	-2----	1142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2479 WEIGHTED AVERAGE DELAY = 9.8 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .54/A WEIGHTED AVERAGE DELAY = 10.2 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 12 - "C" STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	1210	1800	35	96	194	50	1.0	21.4	C	5	27	25	0	1-----	1210	EBT	*
	EBL	1211	-	-	48	97	50	1.0	21.4	C	-	27	25	0	1-----	1211	EBL	
	EBR	1212	-	-	104	210	50	1.0	21.4	C	-	27	25	0	1-----	1212	EBR	
*	SBT	1220	3600	35	1156	2392	48	1.0	5.4	B	7	63	61	27	-2----	1220	SBT	*
	SBL	1221	1300	35	43	881	5	1.0	3.7	A	0	63	61	27	-2----	1221	SBL	
	SBR	1222	-	-	23	48	48	1.0	5.4	B	-	63	61	27	-2----	1222	SBR	
	WBT	1230	1800	35	106	215	49	1.0	21.4	C	5	27	25	0	1-----	1230	WBT	
	WBL	1231	-	-	103	209	49	1.0	21.4	C	-	27	25	0	1-----	1231	WBL	
	WBR	1232	-	-	38	77	49	1.0	21.4	C	-	27	25	0	1-----	1232	WBR	
	NBT	1240	3600	35	463	2250	21	1.0	4.1	A	2	63	61	27	-2----	1240	NBT	
	NBL	1241	1300	35	49	881	6	1.0	3.7	A	0	63	61	27	-2----	1241	NBL	
	NBR	1242	-	-	39	190	21	1.0	4.1	A	-	63	61	27	-2----	1242	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2268 WEIGHTED AVERAGE DELAY = 8.6 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .49/A WEIGHTED AVERAGE DELAY = 8.2 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 13 - "E" STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* SBT	1320	3600	35	1532	3240	47	1.0	.7	A	3	83	81	7	-2----	1320	SBT *
SBL	1321	1400	35	36	1260	3	1.0	.4	A	0	83	81	7	-2----	1321	SBL
* WBL	1331	1700	35	10	21	47	1.0	34.1	D	1	7	5	0	1-----	1331	WBL *
WBR	1332	-	-	34	73	47	1.0	34.1	D	-	7	5	0	1-----	1332	WBR
NBT	1340	3600	35	616	3173	19	1.0	.4	A	1	83	81	7	-2----	1340	NBT
NBR	1342	-	-	13	67	19	1.0	.4	A	-	83	81	7	-2----	1342	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 2241   WEIGHTED AVERAGE DELAY = 1.3   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .47/A   WEIGHTED AVERAGE DELAY = 1.6   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 14 - VALLEY BLVD @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	1410	3600	35	558	705	79	1.0	22.9	C	11	33	31	10	-2----	1410	EBT *
EBL	1411	1700	35	65	151	43	1.0	30.8	D	2	10	8	0	1-----	1411	EBL
EBR	1412	-	-	423	535	79	1.0	22.9	C	-	33	31	10	-2-4--	1412	EBR
* SBT	1420	5400	35	1167	1467	80	1.0	24.2	C	10	29	27	43	--3---	1420	SBT *
SBL	1421	1700	35	242	510	47	1.0	20.1	C	5	29	27	43	--3---	1421	SBL
SBR	1422	-	-	122	153	80	1.0	24.2	C	-	29	27	43	--3---	1422	SBR
WBT	1430	3600	35	586	1062	55	1.0	18.6	C	7	33	31	10	-2----	1430	WBT
* WBL	1431	3200	35	211	284	74	1.0	37.5	D-	2	10	8	0	1-----	1431	WBL *
WBR	1432	-	-	98	178	55	1.0	18.6	C	-	33	31	10	-2----	1432	WBR
* NBT	1440	7200	35	537	683	79	1.0	29.4	D+	6	18	16	72	---4--	1440	NBT *
NBL	1441	-	-	336	427	79	1.0	29.4	D+	-	18	16	72	---4--	1441	NBL
NBR	1442	-	-	134	170	79	1.0	29.4	D+	-	18	16	72	---4--	1442	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 4479   WEIGHTED AVERAGE DELAY = 24.7   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .79/C   WEIGHTED AVERAGE DELAY = 26.1   DELAY LOS = D+   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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INTERSECTION # 15 - I-10 W/B @ RANCHO AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* SBT	1520	5400	35	1462	1849	79	1.0	17.3	C	13	43	41	47	--3---	1520	SBT *
SBR	1522	-	-	483	611	79	1.0	17.3	C	-	43	41	47	--3---	1522	SBR
* WBL	1531	709	35	201	260	77	1.0	28.7	D+	4	35	33	0	1-----	1531	WBL *
WBR	1532	2791	35	370	1023	36	1.0	16.0	C	3	35	33	0	1-----	1532	WBR
NBT	1540	5400	35	806	3180	25	1.0	6.8	B	3	55	53	35	-23---	1540	NBT
* NBL	1541	1700	35	146	189	77	1.0	41.9	E+	3	12	10	35	-2----	1541	NBL *

INTERSECTION SUMMARY : TOTAL FLOW = 3468 WEIGHTED AVERAGE DELAY = 16.4 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .78/C WEIGHTED AVERAGE DELAY = 19.8 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 16 - I-10 E/B @ RANCHO AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBL	1611	2158	35	188	647	29	1.0	18.5	C	2	29	27	0	1-----	1611	EBL
* EBR	1612	1342	35	281	403	70	1.0	25.0	D+	6	29	27	0	1-----	1612	EBR *
SBT	1620	5400	35	1140	3540	32	1.0	5.2	B	4	61	59	29	-23---	1620	SBT
* SBL	1621	1700	35	483	699	69	1.0	18.7	C	10	39	37	29	-2----	1621	SBL *
* NBT	1640	5400	35	767	1139	67	1.0	25.5	D+	6	22	20	68	--3---	1640	NBT *
NBR	1642	-	-	41	61	67	1.0	25.5	D+	-	22	20	68	--3---	1642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2900 WEIGHTED AVERAGE DELAY = 15.9 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .69/B WEIGHTED AVERAGE DELAY = 23.3 DELAY LOS = C SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 17 - MILL STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
* EBT	1710	3600	35	781	1714	46	1.0	9.6	B	6	51	49	12	-2----	1710	EBT *
EBL	1711	1700	35	13	189	7	1.0	27.2	D+	0	12	10	0	1-----	1711	EBL
EBR	1712	-	-	112	246	46	1.0	9.6	B	-	51	49	12	-2----	1712	EBR
SBT	1720	1800	35	26	157	17	1.0	18.7	C	2	27	25	63	--3---	1720	SBT
SBL	1721	-	-	33	199	17	1.0	18.7	C	-	27	25	63	--3---	1721	SBL
SBR	1722	-	-	24	145	17	1.0	18.7	C	-	27	25	63	--3---	1722	SBR
WBT	1730	3600	35	239	1866	13	1.0	7.7	B	1	51	49	12	-2----	1730	WBT
* WBL	1731	1700	35	91	189	48	1.0	30.2	D	2	12	10	0	1-----	1731	WBL *
WBR	1732	-	-	12	94	13	1.0	7.7	B	-	51	49	12	-2----	1732	WBR
* NBT	1740	1800	35	17	36	47	1.0	21.1	C	5	27	25	63	--3---	1740	NBT *
NBL	1741	1400	35	45	389	12	1.0	18.5	C	1	27	25	63	--3---	1741	NBL
NBR	1742	-	-	217	464	47	1.0	21.1	C	-	27	25	63	--3---	1742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1610   WEIGHTED AVERAGE DELAY = 13.0   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .46/A   WEIGHTED AVERAGE DELAY = 13.3   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 18 - JOHNSTON STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
* EBT	1810	1800	35	15	54	28	1.0	16.9	C	3	32	30	0	1-----	1810	EBT *
EBL	1811	-	-	86	307	28	1.0	16.9	C	-	32	30	0	1-----	1811	EBL
EBR	1812	-	-	67	239	28	1.0	16.9	C	-	32	30	0	1-----	1812	EBR
* SBT	1820	1800	35	261	952	27	1.0	5.9	B	3	58	56	32	-2----	1820	SBT *
SBL	1821	-	-	10	36	27	1.0	5.9	B	-	58	56	32	-2----	1821	SBL
SBR	1822	-	-	36	131	27	1.0	5.9	B	-	58	56	32	-2----	1822	SBR
WBT	1830	1800	35	18	235	8	1.0	15.6	C	1	32	30	0	1-----	1830	WBT
WBL	1831	-	-	10	130	8	1.0	15.6	C	-	32	30	0	1-----	1831	WBL
WBR	1832	-	-	18	235	8	1.0	15.6	C	-	32	30	0	1-----	1832	WBR
NBT	1840	1800	35	144	810	18	1.0	5.5	B	2	58	56	32	-2----	1840	NBT
NBL	1841	-	-	45	253	18	1.0	5.5	B	-	58	56	32	-2----	1841	NBL
NBR	1842	-	-	10	56	18	1.0	5.5	B	-	58	56	32	-2----	1842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 720   WEIGHTED AVERAGE DELAY = 9.0   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .28/A   WEIGHTED AVERAGE DELAY = 9.8   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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INTERSECTION # 19 - CITRUS STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	1910	1800	35	11	43	25	1.0	19.3	C	2	27	25	0	1-----	1910	EBT *
EBL	1911	-	-	30	118	25	1.0	19.3	C	-	27	25	0	1-----	1911	EBL
EBR	1912	-	-	86	339	25	1.0	19.3	C	-	27	25	0	1-----	1912	EBR
* SBT	1920	1800	35	265	1060	25	1.0	4.3	A	3	63	61	27	-2----	1920	SBT *
SBL	1921	-	-	10	40	25	1.0	4.3	A	-	63	61	27	-2----	1921	SBL
SBR	1922	-	-	30	120	25	1.0	4.3	A	-	63	61	27	-2----	1922	SBR
WBT	1930	1800	35	10	167	6	1.0	18.2	C	1	27	25	0	1-----	1930	WBT
WBL	1931	-	-	10	167	6	1.0	18.2	C	-	27	25	0	1-----	1931	WBL
WBR	1932	-	-	10	167	6	1.0	18.2	C	-	27	25	0	1-----	1932	WBR
NBT	1940	1800	35	140	1005	14	1.0	3.9	A	1	63	61	27	-2----	1940	NBT
NBL	1941	-	-	19	136	14	1.0	3.9	A	-	63	61	27	-2----	1941	NBL
NBR	1942	-	-	11	79	14	1.0	3.9	A	-	63	61	27	-2----	1942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 632   WEIGHTED AVERAGE DELAY = 7.9   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .25/A   WEIGHTED AVERAGE DELAY = 8.7   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 20 - LAUREL STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2010	1800	35	95	299	32	1.0	19.7	C	3	27	25	0	1-----	2010	EBT *
EBL	2011	-	-	39	123	32	1.0	19.7	C	-	27	25	0	1-----	2011	EBL
EBR	2012	-	-	25	79	32	1.0	19.7	C	-	27	25	0	1-----	2012	EBR
* SBT	2020	1800	35	304	941	32	1.0	4.6	A	4	63	61	27	-2----	2020	SBT *
SBL	2021	-	-	47	146	32	1.0	4.6	A	-	63	61	27	-2----	2021	SBL
SBR	2022	-	-	43	133	32	1.0	4.6	A	-	63	61	27	-2----	2022	SBR
WBT	2030	1800	35	76	309	25	1.0	19.2	C	2	27	25	0	1-----	2030	WBT
WBL	2031	-	-	24	98	25	1.0	19.2	C	-	27	25	0	1-----	2031	WBL
WBR	2032	-	-	23	93	25	1.0	19.2	C	-	27	25	0	1-----	2032	WBR
NBT	2040	1800	35	141	945	15	1.0	4.0	A	2	63	61	27	-2----	2040	NBT
NBL	2041	-	-	18	121	15	1.0	4.0	A	-	63	61	27	-2----	2041	NBL
NBR	2042	-	-	23	154	15	1.0	4.0	A	-	63	61	27	-2----	2042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 858   WEIGHTED AVERAGE DELAY = 9.4   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .32/A   WEIGHTED AVERAGE DELAY = 9.0   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
[illegible] PART OF
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INTERSECTION # 21 - OLIVE STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2110	1800	35	161	442	36	1.0	15.1	C	4	37	35	0	1-----	2110	EBT *
EBL	2111	-	-	31	85	36	1.0	15.1	C	-	37	35	0	1-----	2111	EBL
EBR	2112	-	-	63	173	36	1.0	15.1	C	-	37	35	0	1-----	2112	EBR
* SBT	2120	1800	35	289	810	36	1.0	8.2	B	5	53	51	37	-2----	2120	SBT *
SBL	2121	-	-	50	140	36	1.0	8.2	B	-	53	51	37	-2----	2121	SBL
SBR	2122	-	-	25	70	36	1.0	8.2	B	-	53	51	37	-2----	2122	SBR
WBT	2130	1800	35	98	512	19	1.0	13.8	B	2	37	35	0	1-----	2130	WBT
WBL	2131	-	-	10	52	19	1.0	13.8	B	-	37	35	0	1-----	2131	WBL
WBR	2132	-	-	26	136	19	1.0	13.8	B	-	37	35	0	1-----	2132	WBR
NBT	2140	1800	35	148	786	19	1.0	7.2	B	2	53	51	37	-2----	2140	NBT
NBL	2141	-	-	34	181	19	1.0	7.2	B	-	53	51	37	-2----	2141	NBL
NBR	2142	-	-	10	53	19	1.0	7.2	B	-	53	51	37	-2----	2142	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 945   WEIGHTED AVERAGE DELAY = 10.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .36/A   WEIGHTED AVERAGE DELAY = 11.0   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 22 - "C" STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2210	1800	35	259	656	39	1.0	13.9	B	5	40	38	0	1-----	2210	EBT *
EBL	2211	-	-	28	71	39	1.0	13.9	B	-	40	38	0	1-----	2211	EBL
EBR	2212	-	-	13	33	39	1.0	13.9	B	-	40	38	0	1-----	2212	EBR
* SBT	2220	1800	35	175	449	39	1.0	9.6	B	5	50	48	40	-2----	2220	SBT *
SBL	2221	-	-	169	434	39	1.0	9.6	B	-	50	48	40	-2----	2221	SBL
SBR	2222	-	-	30	77	39	1.0	9.6	B	-	50	48	40	-2----	2222	SBR
WBT	2230	1800	35	135	573	24	1.0	12.7	B	3	40	38	0	1-----	2230	WBT
WBL	2231	-	-	44	187	24	1.0	12.7	B	-	40	38	0	1-----	2231	WBL
WBR	2232	1800	35	130	760	17	1.0	12.3	B	2	40	38	0	1-----	2232	WBR
NBT	2240	1800	35	69	566	12	1.0	8.0	B	1	50	48	40	-2----	2240	NBT
NBL	2241	-	-	10	82	12	1.0	8.0	B	-	50	48	40	-2----	2241	NBL
NBR	2242	-	-	38	312	12	1.0	8.0	B	-	50	48	40	-2----	2242	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 1100   WEIGHTED AVERAGE DELAY = 11.4   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .39/A   WEIGHTED AVERAGE DELAY = 11.5   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 23 - "E" STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2310	1800	35	272	628	43	1.0	13.8	B	6	41	39	0	1-----	2310	EBT *
EBL	2311	-	-	26	60	43	1.0	13.8	B	-	41	39	0	1-----	2311	EBL
EBR	2312	-	-	40	92	43	1.0	13.8	B	-	41	39	0	1-----	2312	EBR
* SBT	2320	1800	35	220	500	44	1.0	10.4	B	6	49	47	41	-2----	2320	SBT *
SBL	2321	-	-	166	377	44	1.0	10.4	B	-	49	47	41	-2----	2321	SBL
SBR	2322	-	-	28	64	44	1.0	10.4	B	-	49	47	41	-2----	2322	SBR
WBT	2330	1800	35	152	376	40	1.0	13.6	B	5	41	39	0	1-----	2330	WBT
WBL	2331	-	-	44	109	40	1.0	13.6	B	-	41	39	0	1-----	2331	WBL
WBR	2332	-	-	119	295	40	1.0	13.6	B	-	41	39	0	1-----	2332	WBR
NBT	2340	1800	35	74	539	14	1.0	8.4	B	2	49	47	41	-2----	2340	NBT
NBL	2341	-	-	10	73	14	1.0	8.4	B	-	49	47	41	-2----	2341	NBL
NBR	2342	-	-	45	328	14	1.0	8.4	B	-	49	47	41	-2----	2342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1196 WEIGHTED AVERAGE DELAY = 12.0 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .44/A WEIGHTED AVERAGE DELAY = 11.9 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 24 - "H" STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2410	1800	35	68	251	27	1.0	23.9	C	2	19	17	0	1-----	2410	EBT *
EBL	2411	-	-	10	37	27	1.0	23.9	C	-	19	17	0	1-----	2411	EBL
EBR	2412	-	-	14	52	27	1.0	23.9	C	-	19	17	0	1-----	2412	EBR
* SBT	2420	1800	35	276	1002	28	1.0	2.4	A	3	71	69	19	-2----	2420	SBT *
SBL	2421	-	-	94	341	28	1.0	2.4	A	-	71	69	19	-2----	2421	SBL
SBR	2422	-	-	10	36	28	1.0	2.4	A	-	71	69	19	-2----	2422	SBR
WBT	2430	1800	35	40	177	23	1.0	23.6	C	2	19	17	0	1-----	2430	WBT
WBL	2431	-	-	22	97	23	1.0	23.6	C	-	19	17	0	1-----	2431	WBL
WBR	2432	-	-	15	66	23	1.0	23.6	C	-	19	17	0	1-----	2432	WBR
NBT	2440	1800	35	122	962	13	1.0	2.1	A	1	71	69	19	-2----	2440	NBT
NBL	2441	-	-	10	79	13	1.0	2.1	A	-	71	69	19	-2----	2441	NBL
NBR	2442	-	-	43	339	13	1.0	2.1	A	-	71	69	19	-2----	2442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 724 WEIGHTED AVERAGE DELAY = 7.3 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .27/A WEIGHTED AVERAGE DELAY = 6.6 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 25 - VALLEY BLVD @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2510	3600	35	795	1570	51	1.0	13.9	B	7	42	40	14	-2----	2510	EBT *
* EBL	2511	1700	35	111	227	49	1.0	28.9	D+	2	14	12	0	1-----	2511	EBL *
EBR	2512	-	-	15	30	51	1.0	13.9	B	-	42	40	14	-2----	2512	EBR
* SBT	2520	1800	35	10	20	50	1.0	17.9	C	6	34	32	56	--3---	2520	SBT *
SBL	2521	-	-	192	385	50	1.0	17.9	C	-	34	32	56	--3---	2521	SBL
SBR	2522	-	-	117	235	50	1.0	17.9	C	-	34	32	56	--3---	2522	SBR
WBT	2530	3600	35	686	1467	47	1.0	13.5	B	6	42	40	14	-2----	2530	WBT
WBL	2531	1700	35	10	227	4	1.0	25.9	D+	0	14	12	0	1-----	2531	WBL
WBR	2532	-	-	62	133	47	1.0	13.5	B	-	42	40	14	-2----	2532	WBR
NBT	2540	1800	35	10	213	5	1.0	14.5	B	0	34	32	56	--3---	2540	NBT
NBL	2541	-	-	10	213	5	1.0	14.5	B	-	34	32	56	--3---	2541	NBL
NBR	2542	-	-	10	213	5	1.0	14.5	B	-	34	32	56	--3---	2542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2028 WEIGHTED AVERAGE DELAY = 15.3 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .50/A WEIGHTED AVERAGE DELAY = 16.3 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 26 - LAUREL STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2610	1800	35	51	237	22	1.0	15.0	B	2	35	33	0	1-----	2610	EBT *
EBL	2611	-	-	61	284	22	1.0	15.0	B	-	35	33	0	1-----	2611	EBL
EBR	2612	-	-	30	139	22	1.0	15.0	B	-	35	33	0	1-----	2612	EBR
* SBT	2620	3600	35	448	2074	22	1.0	6.7	B	2	55	53	35	-2----	2620	SBT *
SBL	2621	1400	35	10	824	1	1.0	5.8	B	0	55	53	35	-2----	2621	SBL
SBR	2622	-	-	10	46	22	1.0	6.7	B	-	55	53	35	-2----	2622	SBR
WBT	2630	1800	35	54	336	16	1.0	14.6	B	2	35	33	0	1-----	2630	WBT
WBL	2631	-	-	30	187	16	1.0	14.6	B	-	35	33	0	1-----	2631	WBL
WBR	2632	-	-	22	137	16	1.0	14.6	B	-	35	33	0	1-----	2632	WBR
NBT	2640	3600	35	319	2031	16	1.0	6.4	B	2	55	53	35	-2----	2640	NBT
NBL	2641	1400	35	16	824	2	1.0	5.9	B	0	55	53	35	-2----	2641	NBL
NBR	2642	-	-	14	89	16	1.0	6.4	B	-	55	53	35	-2----	2642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1065 WEIGHTED AVERAGE DELAY = 8.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .22/A WEIGHTED AVERAGE DELAY = 8.6 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 27 - OLIVE STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2710	1800	35	52	165	31	1.0	15.2	C	4	36	34	0	1-----	2710	EBT *
EBL	2711	-	-	140	445	31	1.0	15.2	C	-	36	34	0	1-----	2711	EBL
EBR	2712	-	-	22	70	31	1.0	15.2	C	-	36	34	0	1-----	2712	EBR
* SBT	2720	3600	35	585	1866	31	1.0	7.5	B	4	54	52	36	-2----	2720	SBT *
SBL	2721	1400	35	10	809	1	1.0	6.2	B	0	54	52	36	-2----	2721	SBL
SBR	2722	-	-	67	214	31	1.0	7.5	B	-	54	52	36	-2----	2722	SBR
WBT	2730	1800	35	63	456	14	1.0	14.0	B	2	36	34	0	1-----	2730	WBT
WBL	2731	-	-	20	145	14	1.0	14.0	B	-	36	34	0	1-----	2731	WBL
WBR	2732	-	-	11	80	14	1.0	14.0	B	-	36	34	0	1-----	2732	WBR
NBT	2740	3600	35	327	2018	16	1.0	6.8	B	2	54	52	36	-2----	2740	NBT
NBL	2741	1400	35	15	809	2	1.0	6.2	B	0	54	52	36	-2----	2741	NBL
NBR	2742	-	-	10	62	16	1.0	6.8	B	-	54	52	36	-2----	2742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1322   WEIGHTED AVERAGE DELAY = 9.0   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .31/A   WEIGHTED AVERAGE DELAY = 9.4   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 28 - "C" STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2810	1800	35	187	407	46	1.0	9.4	B	7	52	50	0	1-----	2810	EBT *
EBL	2811	-	-	180	392	46	1.0	9.4	B	-	52	50	0	1-----	2811	EBL
EBR	2812	-	-	92	200	46	1.0	9.4	B	-	52	50	0	1-----	2812	EBR
* SBT	2820	3600	35	644	1401	46	1.0	15.3	C	6	38	36	52	-2----	2820	SBT *
SBL	2821	1400	35	36	560	6	1.0	12.7	B	1	38	36	52	-2----	2821	SBL
SBR	2822	-	-	18	39	46	1.0	15.3	C	-	38	36	52	-2----	2822	SBR
WBT	2830	1800	35	47	431	11	1.0	7.2	B	1	52	50	0	1-----	2830	WBT
WBL	2831	-	-	44	404	11	1.0	7.2	B	-	52	50	0	1-----	2831	WBL
WBR	2832	-	-	18	165	11	1.0	7.2	B	-	52	50	0	1-----	2832	WBR
NBT	2840	3600	35	365	1394	26	1.0	13.8	B	3	38	36	52	-2----	2840	NBT
NBL	2841	1400	35	24	560	4	1.0	12.6	B	0	38	36	52	-2----	2841	NBL
NBR	2842	-	-	12	46	26	1.0	13.8	B	-	38	36	52	-2----	2842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1667   WEIGHTED AVERAGE DELAY = 12.7   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .46/A   WEIGHTED AVERAGE DELAY = 12.9   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 29 - "E" STREET @ LA CADENA STREE C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2910	1800	35	20	77	26	1.0	24.4	C	2	18	16	0	1-----	2910	EBT *
EBL	2911	-	-	37	143	26	1.0	24.4	C	-	18	16	0	1-----	2911	EBL
EBR	2912	-	-	26	100	26	1.0	24.4	C	-	18	16	0	1-----	2912	EBR
* SBT	2920	3600	35	708	2712	26	1.0	2.1	A	2	72	70	18	-2----	2920	SBT *
SBL	2921	1400	35	12	1089	1	1.0	1.7	A	0	72	70	18	-2----	2921	SBL
SBR	2922	-	-	23	88	26	1.0	2.1	A	-	72	70	18	-2----	2922	SBR
WBT	2930	1800	35	13	126	10	1.0	23.6	C	1	18	16	0	1-----	2930	WBT
WBL	2931	-	-	10	97	10	1.0	23.6	C	-	18	16	0	1-----	2931	WBL
WBR	2932	-	-	10	97	10	1.0	23.6	C	-	18	16	0	1-----	2932	WBR
NBT	2940	3600	35	356	2723	13	1.0	1.9	A	1	72	70	18	-2----	2940	NBT
NBL	2941	1400	35	10	1089	1	1.0	1.7	A	0	72	70	18	-2----	2941	NBL
NBR	2942	-	-	10	77	13	1.0	1.9	A	-	72	70	18	-2----	2942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1235 WEIGHTED AVERAGE DELAY = 4.1 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .26/A WEIGHTED AVERAGE DELAY = 4.4 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 30 - "G" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	3010	1800	35	22	117	19	1.0	26.4	D+	1	14	12	0	1-----	3010	EBT
EBL	3011	-	-	10	53	19	1.0	26.4	D+	-	14	12	0	1-----	3011	EBL
EBR	3012	-	-	13	69	19	1.0	26.4	D+	-	14	12	0	1-----	3012	EBR
* SBT	3020	3600	35	696	2918	24	1.0	1.4	A	2	76	74	14	-2----	3020	SBT *
SBL	3021	1400	35	10	1151	1	1.0	1.1	A	0	76	74	14	-2----	3021	SBL
SBR	3022	-	-	10	42	24	1.0	1.4	A	-	76	74	14	-2----	3022	SBR
* WBT	3030	1800	35	37	153	24	1.0	26.7	D+	1	14	12	0	1-----	3030	WBT *
WBL	3031	-	-	10	41	24	1.0	26.7	D+	-	14	12	0	1-----	3031	WBL
WBR	3032	-	-	11	46	24	1.0	26.7	D+	-	14	12	0	1-----	3032	WBR
NBT	3040	3600	35	356	2879	12	1.0	1.2	A	1	76	74	14	-2----	3040	NBT
NBL	3041	1400	35	19	1151	2	1.0	1.1	A	0	76	74	14	-2----	3041	NBL
NBR	3042	-	-	10	81	12	1.0	1.2	A	-	76	74	14	-2----	3042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1204 WEIGHTED AVERAGE DELAY = 3.5 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .24/A WEIGHTED AVERAGE DELAY = 3.3 DELAY LOS = A SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 31 - "H" STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	3110	1800	35	128	343	37	1.0	14.7	B	5	38	36	0	1-----	3110	EBT	*
	EBL	3111	-	-	36	96	37	1.0	14.7	B	-	38	36	0	1-----	3111	EBL	
	EBR	3112	-	-	105	281	37	1.0	14.7	B	-	38	36	0	1-----	3112	EBR	
*	SBT	3120	3600	35	703	1895	37	1.0	8.6	B	5	52	50	38	-2----	3120	SBT	*
	SBL	3121	1400	35	15	778	2	1.0	6.8	B	0	52	50	38	-2----	3121	SBL	
	SBR	3122	-	-	39	105	37	1.0	8.6	B	-	52	50	38	-2----	3122	SBR	
	WBT	3130	1800	35	69	444	16	1.0	13.2	B	2	38	36	0	1-----	3130	WBT	
	WBL	3131	-	-	29	186	16	1.0	13.2	B	-	38	36	0	1-----	3131	WBL	
	WBR	3132	-	-	14	90	16	1.0	13.2	B	-	38	36	0	1-----	3132	WBR	
	NBT	3140	3600	35	331	1676	20	1.0	7.6	B	2	52	50	38	-2----	3140	NBT	
	NBL	3141	1300	35	39	722	5	1.0	7.0	B	0	52	50	38	-2----	3141	NBL	
	NBR	3142	-	-	64	324	20	1.0	7.6	B	-	52	50	38	-2----	3142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1572   WEIGHTED AVERAGE DELAY = 9.7   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .37/A   WEIGHTED AVERAGE DELAY = 10.2   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 32 - VALLEY BLVD @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	3210	3600	35	652	881	74	1.0	21.0	C	10	34	32	13	-2----	3210	EBT	*
	EBL	3211	1700	35	106	208	51	1.0	29.9	D+	2	13	11	0	1-----	3211	EBL	
	EBR	3212	-	-	295	399	74	1.0	21.0	C	-	34	32	13	-2----	3212	EBR	
*	SBT	3220	3600	35	582	777	75	1.0	23.8	C	9	29	27	61	---4--	3220	SBT	*
	SBL	3221	1700	35	31	227	14	1.0	26.2	D+	1	14	12	47	--3---	3221	SBL	
	SBR	3222	-	-	227	303	75	1.0	23.8	C	-	29	27	61	---4--	3222	SBR	
	WBT	3230	3600	35	442	1252	35	1.0	16.4	C	4	34	32	13	-2----	3230	WBT	
*	WBL	3231	3200	35	294	391	75	1.0	34.7	D	3	13	11	0	1-----	3231	WBL	*
	WBR	3232	-	-	10	28	35	1.0	16.4	C	-	34	32	13	-2----	3232	WBR	
	NBT	3240	3600	35	328	631	52	1.0	20.3	C	5	29	27	61	---4--	3240	NBT	
*	NBL	3241	1700	35	167	227	74	1.0	36.8	D-	4	14	12	47	--3---	3241	NBL	*
	NBR	3242	-	-	233	449	52	1.0	20.3	C	-	29	27	0	1--4--	3242	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3367   WEIGHTED AVERAGE DELAY = 23.2   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .74/C   WEIGHTED AVERAGE DELAY = 25.0   DELAY LOS = D+   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 33 - I-10 W/B @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* SBT	3320	3600	35	879	1913	46	1.0	7.0	B	6	58	56	32	--3---	3320	SBT *
SBR	3322	-	-	150	327	46	1.0	7.0	B	-	58	56	32	--3---	3322	SBR
* WBT	3330	1800	35	10	20	50	1.0	37.9	D-	1	5	3	0	1-----	3330	WBT *
WBL	3331	-	-	10	20	50	1.0	37.9	D-	-	5	3	0	1-----	3331	WBL
WBR	3332	-	-	10	20	50	1.0	37.9	D-	-	5	3	0	1-----	3332	WBR
NBT	3340	3600	35	722	3320	22	1.0	.3	A	1	85	83	5	-23---	3340	NBT
* NBL	3341	1700	35	212	472	45	1.0	20.9	C	4	27	25	5	-2----	3341	NBL *

INTERSECTION SUMMARY : TOTAL FLOW = 1993 WEIGHTED AVERAGE DELAY = 6.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .46/A WEIGHTED AVERAGE DELAY = 10.0 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 34 - "M" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	3410	1800	35	10	80	12	1.0	23.7	C	1	18	16	0	1-----	3410	EBT
EBL	3411	-	-	20	160	12	1.0	23.7	C	-	18	16	0	1-----	3411	EBL
EBR	3412	-	-	10	80	12	1.0	23.7	C	-	18	16	0	1-----	3412	EBR
SBT	3420	3600	35	821	2724	30	1.0	2.2	A	3	72	70	18	-2----	3420	SBT
SBL	3421	1400	35	29	1089	3	1.0	1.7	A	0	72	70	18	-2----	3421	SBL
SBR	3422	-	-	23	76	30	1.0	2.2	A	-	72	70	18	-2----	3422	SBR
* WBT	3430	1800	35	18	50	36	1.0	25.1	D+	3	18	16	0	1-----	3430	WBT *
WBL	3431	-	-	44	121	36	1.0	25.1	D+	-	18	16	0	1-----	3431	WBL
WBR	3432	-	-	54	149	36	1.0	25.1	D+	-	18	16	0	1-----	3432	WBR
* NBT	3440	3600	35	966	2708	36	1.0	2.4	A	3	72	70	18	-2----	3440	NBT *
NBL	3441	1400	35	12	1089	1	1.0	1.7	A	0	72	70	18	-2----	3441	NBL
NBR	3442	-	-	33	92	36	1.0	2.4	A	-	72	70	18	-2----	3442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2040 WEIGHTED AVERAGE DELAY = 4.0 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .36/A WEIGHTED AVERAGE DELAY = 4.7 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 35 - "N" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	3510	1800	35	18	52	35	1.0	22.1	C	3	23	21	0	1-----	3510	EBT	*
	EBL	3511	-	-	73	210	35	1.0	22.1	C	-	23	21	0	1-----	3511	EBL	
	EBR	3512	-	-	55	158	35	1.0	22.1	C	-	23	21	0	1-----	3512	EBR	
*	SBT	3520	3600	35	762	2244	34	1.0	3.5	A	4	67	65	23	-2----	3520	SBT	*
	SBL	3521	1400	35	10	1011	1	1.0	2.7	A	0	67	65	23	-2----	3521	SBL	
	SBR	3522	-	-	121	356	34	1.0	3.5	A	-	67	65	23	-2----	3522	SBR	
	WBT	3530	1800	35	11	122	9	1.0	20.6	C	1	23	21	0	1-----	3530	WBT	
	WBL	3531	-	-	13	144	9	1.0	20.6	C	-	23	21	0	1-----	3531	WBL	
	WBR	3532	-	-	14	155	9	1.0	20.6	C	-	23	21	0	1-----	3532	WBR	
	NBT	3540	3600	35	825	2569	32	1.0	3.5	A	3	67	65	23	-2----	3540	NBT	
	NBL	3541	1400	35	34	1011	3	1.0	2.7	A	0	67	65	23	-2----	3541	NBL	
	NBR	3542	-	-	10	31	32	1.0	3.5	A	-	67	65	23	-2----	3542	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1946 WEIGHTED AVERAGE DELAY = 5.2 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .34/A WEIGHTED AVERAGE DELAY = 6.2 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 36 - 7TH STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	3610	1800	35	10	72	14	1.0	23.1	C	1	19	17	0	1-----	3610	EBT	
	EBL	3611	-	-	10	72	14	1.0	23.1	C	-	19	17	0	1-----	3611	EBL	
	EBR	3612	-	-	27	195	14	1.0	23.1	C	-	19	17	0	1-----	3612	EBR	
	SBT	3620	3600	35	844	2715	31	1.0	2.5	A	3	71	69	19	-2----	3620	SBT	
	SBL	3621	1300	35	53	997	5	1.0	1.9	A	0	71	69	19	-2----	3621	SBL	
	SBR	3622	-	-	14	45	31	1.0	2.5	A	-	71	69	19	-2----	3622	SBR	
*	WBT	3630	1800	35	18	44	41	1.0	24.9	C	3	19	17	0	1-----	3630	WBT	*
	WBL	3631	-	-	10	25	41	1.0	24.9	C	-	19	17	0	1-----	3631	WBL	
	WBR	3632	-	-	110	271	41	1.0	24.9	C	-	19	17	0	1-----	3632	WBR	
*	NBT	3640	3600	35	1081	2671	40	1.0	2.8	A	4	71	69	19	-2----	3640	NBT	*
	NBL	3641	-	-	36	89	40	1.0	2.8	A	-	71	69	19	-2----	3641	NBL	
	NBR	3642	1400	35	44	1073	4	1.0	1.9	A	0	71	69	19	-2----	3642	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2257 WEIGHTED AVERAGE DELAY = 4.4 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .40/A WEIGHTED AVERAGE DELAY = 5.2 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 37 - FOGG STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

	APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH	
	(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)	
*	EBT	3710	1800	35	50	128	39	1.0	10.4	B	5	48	46	0	1-----	3710	EBT	*
	EBL	3711	-	-	85	217	39	1.0	10.4	B	-	48	46	0	1-----	3711	EBL	
	EBR	3712	-	-	225	575	39	1.0	10.4	B	-	48	46	0	1-----	3712	EBR	
*	SBT	3720	3600	35	519	1337	39	1.0	12.9	B	5	42	40	48	-2----	3720	SBT	*
	SBL	3721	1700	35	10	756	1	1.0	10.6	B	0	42	40	48	-2----	3721	SBL	
	SBR	3722	-	-	102	263	39	1.0	12.9	B	-	42	40	48	-2----	3722	SBR	
	WBT	3730	1800	35	12	155	8	1.0	8.5	B	1	48	46	0	1-----	3730	WBT	
	WBL	3731	-	-	49	635	8	1.0	8.5	B	-	48	46	0	1-----	3731	WBL	
	WBR	3732	-	-	10	130	8	1.0	8.5	B	-	48	46	0	1-----	3732	WBR	
	NBT	3740	3600	35	506	1323	38	1.0	12.8	B	5	42	40	48	-2----	3740	NBT	
	NBL	3741	1700	35	41	756	5	1.0	10.8	B	1	42	40	48	-2----	3741	NBL	
	NBR	3742	-	-	106	277	38	1.0	12.8	B	-	42	40	48	-2----	3742	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1715   WEIGHTED AVERAGE DELAY = 12.1   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .39/A   WEIGHTED AVERAGE DELAY = 12.0   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 38 - FOGG STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

	APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH	
	(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)	
*	EBT	3810	1800	35	94	255	37	1.0	25.1	D+	3	18	16	0	1-----	3810	EBT	*
	EBL	3811	1400	35	41	249	16	1.0	23.9	C	1	18	16	0	1-----	3811	EBL	
	EBR	3812	-	-	24	65	37	1.0	25.1	D+	-	18	16	0	1-----	3812	EBR	
*	SBT	3820	3600	35	985	2602	38	1.0	2.5	A	4	72	70	18	-2----	3820	SBT	*
	SBL	3821	1400	35	10	1089	1	1.0	1.7	A	0	72	70	18	-2----	3821	SBL	
	SBR	3822	-	-	75	198	38	1.0	2.5	A	-	72	70	18	-2----	3822	SBR	
	WBT	3830	1800	35	95	274	35	1.0	25.0	C	2	18	16	0	1-----	3830	WBT	
	WBL	3831	1400	35	10	249	4	1.0	23.3	C	0	18	16	0	1-----	3831	WBL	
	WBR	3832	-	-	16	46	35	1.0	25.0	C	-	18	16	0	1-----	3832	WBR	
	NBT	3840	3600	35	559	2751	20	1.0	2.0	A	2	72	70	18	-2----	3840	NBT	
	NBL	3841	1400	35	36	1089	3	1.0	1.7	A	0	72	70	18	-2----	3841	NBL	
	NBR	3842	-	-	10	49	20	1.0	2.0	A	-	72	70	18	-2----	3842	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1955   WEIGHTED AVERAGE DELAY = 5.5   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .38/A   WEIGHTED AVERAGE DELAY = 4.7   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 39 - RANCHO AVENUE @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBL	3911	168	35	10	65	15	1.0	13.7	B	0	37	35	53	--3---	3911	EBL
* EBR	3912	3432	35	984	1335	74	1.0	19.6	C	10	37	35	53	--3---	3912	EBR *
* SBT	3920	3600	35	770	1009	76	1.0	24.7	C	9	28	26	25	-2----	3920	SBT *
SBR	3922	-	-	24	31	76	1.0	24.7	C	-	28	26	25	-2----	3922	SBR
NBT	3940	3600	35	642	2040	31	1.0	7.9	B	4	53	51	0	12----	3940	NBT
* NBL	3941	3200	35	618	818	76	1.0	26.5	D+	7	25	23	0	1-----	3941	NBL *

INTERSECTION SUMMARY : TOTAL FLOW = 3048   WEIGHTED AVERAGE DELAY = 19.8   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .75/C   WEIGHTED AVERAGE DELAY = 23.1   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 40 - WASHINGTON STRE @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	4010	3600	35	69	419	16	1.0	26.3	D+	1	14	12	0	1-----	4010	EBT
EBL	4011	1700	35	51	227	22	1.0	26.6	D+	1	14	12	0	1-----	4011	EBL
EBR	4012	-	-	10	61	16	1.0	26.3	D+	-	14	12	0	1-----	4012	EBR
* SBT	4020	3600	35	1434	2315	62	1.0	6.2	B	10	64	62	26	--3---	4020	SBT *
* SBL	4021	3200	35	218	356	61	1.0	31.3	D	2	12	10	14	-2----	4021	SBL *
SBR	4022	-	-	102	165	62	1.0	6.2	B	-	64	62	26	--3---	4022	SBR
* WBT	4030	3600	35	141	232	61	1.0	29.7	D+	3	14	12	0	1-----	4030	WBT *
WBL	4031	1700	35	98	227	43	1.0	28.2	D+	2	14	12	0	1-----	4031	WBL
WBR	4032	-	-	151	248	61	1.0	29.7	D+	-	14	12	0	1-----	4032	WBR
NBT	4040	3600	35	1058	1919	55	1.0	5.6	B	8	64	62	26	--3---	4040	NBT
NBL	4041	1700	35	10	189	5	1.0	27.2	D+	0	12	10	14	-2----	4041	NBL
NBR	4042	-	-	309	561	55	1.0	5.6	B	-	64	62	26	--3---	4042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3651   WEIGHTED AVERAGE DELAY = 10.7   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .62/B   WEIGHTED AVERAGE DELAY = 12.2   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 41 - BARTON ROAD @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	4110	3600	35	236	450	52	1.0	27.9	D+	3	15	13	19	-2----	4110	EBT	
*	EBL	4111	1700	35	270	321	84	1.0	39.5	D-	6	19	17	0	1-----	4111	EBL	*
	EBR	4112	-	-	37	70	52	1.0	27.9	D+	-	15	13	19	-2----	4112	EBR	
*	SBT	4120	3600	35	781	956	82	1.0	23.2	C	12	34	32	56	---4--	4120	SBT	*
*	SBL	4121	3200	35	597	711	84	1.0	32.0	D	7	22	20	34	--3---	4121	SBL	*
	SBR	4122	-	-	265	324	82	1.0	23.2	C	-	34	32	56	---4--	4122	SBR	
*	WBT	4130	3600	35	154	183	84	1.0	37.2	D-	5	15	13	19	-2----	4130	WBT	*
	WBL	4131	1700	35	92	321	29	1.0	24.0	C	2	19	17	0	1-----	4131	WBL	
	WBR	4132	-	-	284	337	84	1.0	37.2	D-	-	15	13	19	-23---	4132	WBR	
	NBT	4140	3600	35	689	1076	64	1.0	19.3	C	8	34	32	56	---4--	4140	NBT	
	NBL	4141	1700	35	21	378	6	1.0	21.0	C	0	22	20	34	--3---	4141	NBL	
	NBR	4142	-	-	131	204	64	1.0	19.3	C	-	34	32	56	---4--	4142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3557 WEIGHTED AVERAGE DELAY = 27.1 DELAY LOS = D+ CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .83/D WEIGHTED AVERAGE DELAY = 29.9 DELAY LOS = D+ SYSTEM (BG) OFFSET = 86

INTERSECTION # 42 - I-215 S/B @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBL	4211	2678	35	397	1160	34	1.0	13.0	B	3	41	39	0	1-----	4211	EBL	
*	EBR	4212	2572	35	706	1115	63	1.0	16.1	C	6	41	39	0	1-----	4212	EBR	*
	SBT	4220	3600	35	483	1880	26	1.0	9.1	B	3	49	47	41	-2----	4220	SBT	
*	NBT	4240	3600	35	1194	1880	64	1.0	12.3	B	10	49	47	41	-2----	4240	NBT	*

INTERSECTION SUMMARY : TOTAL FLOW = 2780 WEIGHTED AVERAGE DELAY = 12.8 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .63/B WEIGHTED AVERAGE DELAY = 13.7 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 43 - I-215 N/B @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
SBT	4320	3600	35	1062	2640	40	1.0	3.5	A	4	68	66	0	12----	4320	SBT
* SBL	4321	1700	35	133	264	50	1.0	27.8	D+	3	16	14	0	1-----	4321	SBL *
* WBL	4331	187	35	22	42	53	1.0	32.7	D	0	22	20	68	--3---	4331	WBL *
WBR	4332	3313	35	295	736	40	1.0	23.0	C	3	22	20	68	--3---	4332	WBR
* NBT	4340	3600	35	906	1744	52	1.0	9.7	B	8	52	50	16	-2----	4340	NBT *
NBR	4342	-	-	133	256	52	1.0	9.7	B	-	52	50	16	-2----	4342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2551 WEIGHTED AVERAGE DELAY = 9.8 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .52/A WEIGHTED AVERAGE DELAY = 12.2 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 44 - "H" STREET @ 9TH STREET C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	4410	1800	35	98	469	21	1.0	12.1	B	2	41	39	0	1-----	4410	EBT *
EBL	4411	-	-	41	196	21	1.0	12.1	B	-	41	39	0	1-----	4411	EBL
EBR	4412	-	-	24	115	21	1.0	12.1	B	-	41	39	0	1-----	4412	EBR
* SBT	4420	1800	35	178	862	21	1.0	8.8	B	3	49	47	41	-2----	4420	SBT *
SBL	4421	1400	35	10	731	1	1.0	7.9	B	0	49	47	41	-2----	4421	SBL
SBR	4422	-	-	16	78	21	1.0	8.8	B	-	49	47	41	-2----	4422	SBR
WBT	4430	1800	35	48	374	13	1.0	11.7	B	1	41	39	0	1-----	4430	WBT
WBL	4431	-	-	40	312	13	1.0	11.7	B	-	41	39	0	1-----	4431	WBL
WBR	4432	-	-	12	94	13	1.0	11.7	B	-	41	39	0	1-----	4432	WBR
NBT	4440	1800	35	158	884	18	1.0	8.6	B	2	49	47	41	-2----	4440	NBT
NBL	4441	1400	35	40	731	5	1.0	8.1	B	0	49	47	41	-2----	4441	NBL
NBR	4442	-	-	10	56	18	1.0	8.6	B	-	49	47	41	-2----	4442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 675 WEIGHTED AVERAGE DELAY = 9.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .21/A WEIGHTED AVERAGE DELAY = 10.3 DELAY LOS = B SYSTEM (BG) OFFSET = 86

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INTERSECTION # 45 - VALLEY BLVD @ 9TH STREET C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	4510	3600	35	709	1148	62	1.0	17.0	C	8	38	36	5	-2----	4510	EBT	*
	EBL	4511	1700	35	21	57	37	1.0	34.3	D	1	5	3	0	1-----	4511	EBL	
	EBR	4512	-	-	180	292	62	1.0	17.0	C	-	38	36	5	-2----	4512	EBR	
*	SBT	4520	1800	35	88	149	59	1.0	26.8	D+	5	20	18	43	--3---	4520	SBT	*
	SBL	4521	1400	35	26	280	9	1.0	22.3	C	1	20	18	43	--3---	4521	SBL	
	SBR	4522	-	-	125	211	59	1.0	26.8	D+	-	20	18	43	--3---	4522	SBR	
	WBT	4530	3600	35	443	1354	33	1.0	14.3	B	4	38	36	5	-2----	4530	WBT	
*	WBL	4531	1700	35	22	57	39	1.0	34.7	D	1	5	3	0	1-----	4531	WBL	*
	WBR	4532	-	-	28	86	33	1.0	14.3	B	-	38	36	5	-2----	4532	WBR	
*	NBT	4540	1800	35	188	322	58	1.0	22.7	C	6	27	25	63	---4--	4540	NBT	*
	NBL	4541	1200	35	170	333	51	1.0	22.0	C	4	27	25	63	---4--	4541	NBL	
	NBR	4542	-	-	104	178	58	1.0	22.7	C	-	27	25	63	---4--	4542	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2104 WEIGHTED AVERAGE DELAY = 19.0 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .59/A WEIGHTED AVERAGE DELAY = 19.9 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 46 - I-10 W/B @ 9TH STREET C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	SBT	4620	1800	35	215	745	29	1.0	12.6	B	4	41	39	49	-2----	4620	SBT	*
	SBR	4622	-	-	10	35	29	1.0	12.6	B	-	41	39	49	-2----	4622	SBR	
	WBT	4630	1800	35	10	392	3	1.0	7.9	B	0	49	47	0	1-----	4630	WBT	
	WBL	4631	-	-	14	548	3	1.0	7.9	B	-	49	47	0	1-----	4631	WBL	
*	WBR	4632	1800	35	249	940	26	1.0	9.1	B	3	49	47	0	1-----	4632	WBR	*
	NBT	4640	1800	35	214	780	27	1.0	12.5	B	3	41	39	49	-2----	4640	NBT	
	NBL	4641	1400	35	11	607	2	1.0	11.1	B	0	41	39	49	-2----	4641	NBL	

INTERSECTION SUMMARY : TOTAL FLOW = 723 WEIGHTED AVERAGE DELAY = 11.2 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .28/A WEIGHTED AVERAGE DELAY = 10.8 DELAY LOS = B SYSTEM (BG) OFFSET = 86

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INTERSECTION # 47 - I-10 E/B @ 9TH STREET   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBL	4711	1648	35	145	842	17	1.0	9.0	B	2	48	46	0	1-----	4711	EBL
* EBR	4712	52	35	10	27	38	1.0	14.3	B	0	48	46	0	1-----	4712	EBR *
SBT	4720	1800	35	10	800	1	1.0	10.6	B	0	42	40	48	-2----	4720	SBT
* SBL	4721	1700	35	284	756	38	1.0	12.9	B	5	42	40	48	-2----	4721	SBL *
NBT	4740	1800	35	10	400	3	1.0	10.7	B	0	42	40	48	-2----	4740	NBT
NBR	4742	-	-	10	400	3	1.0	10.7	B	-	42	40	48	-2----	4742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 469   WEIGHTED AVERAGE DELAY = 11.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .38/A   WEIGHTED AVERAGE DELAY = 12.9   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 48 - LA CADENA DR/GR @ MT VERNON AVE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	4810	3600	35	272	596	46	1.0	25.6	D+	3	18	16	0	1-----	4810	EBT
* EBL	4811	3200	35	379	569	67	1.0	28.4	D+	4	18	16	0	1-----	4811	EBL *
EBR	4812	-	-	20	44	46	1.0	25.6	D+	-	18	16	0	1-----	4812	EBR
SBT	4820	3600	35	513	1240	41	1.0	17.3	C	5	33	31	34	--34--	4820	SBT
* SBL	4821	1700	35	364	491	74	1.0	26.3	D+	8	28	26	34	--3---	4821	SBL *
* SBR	4822	1800	35	415	620	67	1.0	21.2	C	9	33	31	34	--34--	4822	SBR *
* WBT	4830	3600	35	215	324	66	1.0	29.4	D+	4	16	14	18	-2----	4830	WBT *
WBL	4831	1700	35	70	264	26	1.0	25.6	D+	2	16	14	18	-2----	4831	WBL
WBR	4832	-	-	157	236	66	1.0	29.4	D+	-	16	14	18	-2----	4832	WBR
NBT	4840	3600	35	461	762	60	1.0	21.8	C	6	28	26	62	---45-	4840	NBT
NBL	4841	1700	35	12	397	3	1.0	20.3	C	0	23	21	67	----5-	4841	NBL
NBR	4842	-	-	168	278	60	1.0	21.8	C	-	28	26	62	---45-	4842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3046   WEIGHTED AVERAGE DELAY = 23.7   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .69/B   WEIGHTED AVERAGE DELAY = 26.2   DELAY LOS = D+   SYSTEM (BG) OFFSET = 86

INTERSECTION # 49 - LAUREL STREET @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
* EBL	4911	1700	35	44	227	19	1.0	26.4	D+	1	14	12	0	1-----	4911	EBL *
EBR	4912	1800	35	32	240	13	1.0	26.2	D+	1	14	12	0	1-----	4912	EBR
* SBT	4920	3600	35	553	2719	20	1.0	1.3	A	1	76	74	14	-2----	4920	SBT *
SBR	4922	-	-	49	241	20	1.0	1.3	A	-	76	74	14	-2----	4922	SBR
NBT	4940	3600	35	499	2960	17	1.0	1.3	A	1	76	74	14	-2----	4940	NBT
NBL	4941	1300	35	45	1069	4	1.0	1.1	A	0	76	74	14	-2----	4941	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 1222   WEIGHTED AVERAGE DELAY = 2.8   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .20/A   WEIGHTED AVERAGE DELAY = 3.0   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 50 - OLIVE STREET @ MT VERNON AVE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
EBL	5011	1800	35	44	200	22	1.0	27.8	D+	1	12	10	0	1-----	5011	EBL
* EBR	5012	1700	35	48	189	25	1.0	28.0	D+	1	12	10	0	1-----	5012	EBR *
* SBT	5020	3600	35	751	2850	26	1.0	1.1	A	2	78	76	12	-2----	5020	SBT *
SBR	5022	-	-	50	190	26	1.0	1.1	A	-	78	76	12	-2----	5022	SBR
NBT	5040	3600	35	510	3040	17	1.0	1.0	A	1	78	76	12	-2----	5040	NBT
NBL	5041	1400	35	33	1182	3	1.0	.9	A	0	78	76	12	-2----	5041	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 1436   WEIGHTED AVERAGE DELAY = 2.8   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .26/A   WEIGHTED AVERAGE DELAY = 2.6   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 51 - COLTON AVENUE @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	5110	1800	35	121	868	14	1.0	8.4	B	2	49	47	0	1-----	5110	EBT
EBL	5111	1400	35	39	731	5	1.0	8.1	B	0	49	47	0	1-----	5111	EBL
EBR	5112	-	-	10	72	14	1.0	8.4	B	-	49	47	0	1-----	5112	EBR
* SBT	5120	3600	35	642	1421	45	1.0	13.9	B	6	41	39	49	-2----	5120	SBT *
SBL	5121	1400	35	30	607	5	1.0	11.2	B	0	41	39	49	-2----	5121	SBL
SBR	5122	-	-	63	139	45	1.0	13.9	B	-	41	39	49	-2----	5122	SBR
WBT	5130	1800	35	123	832	15	1.0	8.5	B	2	49	47	0	1-----	5130	WBT
* WBL	5131	1100	35	259	574	45	1.0	10.7	B	4	49	47	0	1-----	5131	WBL *
WBR	5132	-	-	16	108	15	1.0	8.5	B	-	49	47	0	1-----	5132	WBR
NBT	5140	3600	35	508	1291	39	1.0	13.4	B	5	41	39	49	-2----	5140	NBT
NBL	5141	1400	35	10	607	2	1.0	11.1	B	0	41	39	49	-2----	5141	NBL
NBR	5142	-	-	106	269	39	1.0	13.4	B	-	41	39	49	-2----	5142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1927   WEIGHTED AVERAGE DELAY = 12.3   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .45/A   WEIGHTED AVERAGE DELAY = 13.0   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 52 - "C" STREET @ COLTON AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5210	1800	35	150	754	20	1.0	6.9	B	2	54	52	0	1-----	5210	EBT *
EBL	5211	-	-	47	236	20	1.0	6.9	B	-	54	52	0	1-----	5211	EBL
EBR	5212	-	-	10	50	20	1.0	6.9	B	-	54	52	0	1-----	5212	EBR
* SBT	5220	1800	35	94	481	20	1.0	14.3	B	2	36	34	54	-2----	5220	SBT *
SBL	5221	1400	35	10	529	2	1.0	13.4	B	0	36	34	54	-2----	5221	SBL
SBR	5222	-	-	39	199	20	1.0	14.3	B	-	36	34	54	-2----	5222	SBR
WBT	5230	1800	35	56	766	7	1.0	6.4	B	1	54	52	0	1-----	5230	WBT
WBL	5231	-	-	10	137	7	1.0	6.4	B	-	54	52	0	1-----	5231	WBL
WBR	5232	-	-	10	137	7	1.0	6.4	B	-	54	52	0	1-----	5232	WBR
NBT	5240	1800	35	97	616	16	1.0	14.1	B	2	36	34	54	-2----	5240	NBT
NBL	5241	1400	35	10	529	2	1.0	13.4	B	0	36	34	54	-2----	5241	NBL
NBR	5242	-	-	10	64	16	1.0	14.1	B	-	36	34	54	-2----	5242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 543   WEIGHTED AVERAGE DELAY = 10.3   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .20/A   WEIGHTED AVERAGE DELAY = 9.8   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 53 - "E" STREET @ COLTON STREET C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5310	1800	35	28	313	9	1.0	14.2	B	1	35	33	0	1-----	5310	EBT *
EBL	5311	-	-	20	224	9	1.0	14.2	B	-	35	33	0	1-----	5311	EBL
EBR	5312	-	-	11	123	9	1.0	14.2	B	-	35	33	0	1-----	5312	EBR
SBT	5320	1800	35	83	926	9	1.0	6.1	B	1	55	53	35	-2----	5320	SBT
SBL	5321	1400	35	12	824	1	1.0	5.8	B	0	55	53	35	-2----	5321	SBL
SBR	5322	-	-	12	134	9	1.0	6.1	B	-	55	53	35	-2----	5322	SBR
WBT	5330	1800	35	28	385	7	1.0	14.1	B	1	35	33	0	1-----	5330	WBT
WBL	5331	-	-	10	138	7	1.0	14.1	B	-	35	33	0	1-----	5331	WBL
WBR	5332	-	-	10	138	7	1.0	14.1	B	-	35	33	0	1-----	5332	WBR
* NBT	5340	1800	35	85	948	9	1.0	6.1	B	1	55	53	35	-2----	5340	NBT *
NBL	5341	1400	35	10	824	1	1.0	5.8	B	0	55	53	35	-2----	5341	NBL
NBR	5342	-	-	10	112	9	1.0	6.1	B	-	55	53	35	-2----	5342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 319 WEIGHTED AVERAGE DELAY = 8.8 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .09/A WEIGHTED AVERAGE DELAY = 9.2 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 54 - "F" STREET @ COLTON AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5410	1800	35	68	559	12	1.0	12.5	B	1	39	37	0	1-----	5410	EBT *
EBL	5411	-	-	12	99	12	1.0	12.5	B	-	39	37	0	1-----	5411	EBL
EBR	5412	-	-	10	82	12	1.0	12.5	B	-	39	37	0	1-----	5412	EBR
* SBT	5420	1800	35	107	896	12	1.0	7.6	B	1	51	49	39	-2----	5420	SBT *
SBL	5421	1400	35	10	762	1	1.0	7.2	B	0	51	49	39	-2----	5421	SBL
SBR	5422	-	-	10	84	12	1.0	7.6	B	-	51	49	39	-2----	5422	SBR
WBT	5430	1800	35	24	362	7	1.0	12.2	B	1	39	37	0	1-----	5430	WBT
WBL	5431	-	-	15	227	7	1.0	12.2	B	-	39	37	0	1-----	5431	WBL
WBR	5432	-	-	10	151	7	1.0	12.2	B	-	39	37	0	1-----	5432	WBR
NBT	5440	1800	35	64	836	8	1.0	7.4	B	1	51	49	39	-2----	5440	NBT
NBL	5441	1400	35	10	762	1	1.0	7.2	B	0	51	49	39	-2----	5441	NBL
NBR	5442	-	-	11	144	8	1.0	7.4	B	-	51	49	39	-2----	5442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 351 WEIGHTED AVERAGE DELAY = 9.4 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .12/A WEIGHTED AVERAGE DELAY = 9.7 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 55 - "H" STREET @ 10TH STREET   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5510	1800	35	93	766	12	1.0	7.6	B	1	51	49	0	1-----	5510	EBT *
EBL	5511	-	-	14	115	12	1.0	7.6	B	-	51	49	0	1-----	5511	EBL
EBR	5512	-	-	12	99	12	1.0	7.6	B	-	51	49	0	1-----	5512	EBR
SBT	5520	1800	35	44	397	11	1.0	12.5	B	1	39	37	51	-2----	5520	SBT
SBL	5521	-	-	10	90	11	1.0	12.5	B	-	39	37	51	-2----	5521	SBL
SBR	5522	-	-	28	253	11	1.0	12.5	B	-	39	37	51	-2----	5522	SBR
WBT	5530	1800	35	56	704	8	1.0	7.4	B	1	51	49	0	1-----	5530	WBT
WBL	5531	-	-	10	126	8	1.0	7.4	B	-	51	49	0	1-----	5531	WBL
WBR	5532	-	-	12	151	8	1.0	7.4	B	-	51	49	0	1-----	5532	WBR
* NBT	5540	1800	35	64	520	12	1.0	12.5	B	1	39	37	51	-2----	5540	NBT *
NBL	5541	-	-	10	81	12	1.0	12.5	B	-	39	37	51	-2----	5541	NBL
NBR	5542	-	-	17	138	12	1.0	12.5	B	-	39	37	51	-2----	5542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 370   WEIGHTED AVERAGE DELAY = 9.9   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .12/A   WEIGHTED AVERAGE DELAY = 9.7   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 56 - VALLEY BLVD @ 10TH STREET   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5610	3600	35	742	1612	46	1.0	13.0	B	6	43	41	29	-2----	5610	EBT *
* EBL	5611	1700	35	230	510	45	1.0	19.9	C	5	29	27	0	1-----	5611	EBL *
EBR	5612	-	-	13	28	46	1.0	13.0	B	-	43	41	29	-2----	5612	EBR
SBT	5620	1800	35	10	47	21	1.0	24.1	C	1	18	16	72	--3---	5620	SBT
SBL	5621	-	-	13	61	21	1.0	24.1	C	-	18	16	72	--3---	5621	SBL
SBR	5622	-	-	45	212	21	1.0	24.1	C	-	18	16	72	--3---	5622	SBR
WBT	5630	3600	35	478	1600	30	1.0	11.8	B	4	43	41	29	-2----	5630	WBT
WBL	5631	1700	35	10	510	2	1.0	16.9	C	0	29	27	0	1-----	5631	WBL
WBR	5632	-	-	12	40	30	1.0	11.8	B	-	43	41	29	-2----	5632	WBR
* NBT	5640	1800	35	10	21	47	1.0	26.1	D+	3	18	16	72	--3---	5640	NBT *
NBL	5641	-	-	129	277	47	1.0	26.1	D+	-	18	16	72	--3---	5641	NBL
NBR	5642	-	-	10	21	47	1.0	26.1	D+	-	18	16	72	--3---	5642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1702   WEIGHTED AVERAGE DELAY = 15.2   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .46/A   WEIGHTED AVERAGE DELAY = 16.1   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 57 - "E" STREET @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5710	1800	35	10	32	31	1.0	30.9	D	1	8	6	0	1-----	5710	EBT *
EBL	5711	-	-	11	36	31	1.0	30.9	D	-	8	6	0	1-----	5711	EBL
EBR	5712	-	-	16	52	31	1.0	30.9	D	-	8	6	0	1-----	5712	EBR
* SBT	5720	3600	35	1066	3164	34	1.0	.6	A	2	82	80	8	-2----	5720	SBT *
SBL	5721	1400	35	10	1244	1	1.0	.4	A	0	82	80	8	-2----	5721	SBL
SBR	5722	-	-	12	36	34	1.0	.6	A	-	82	80	8	-2----	5722	SBR
WBT	5730	1800	35	10	40	25	1.0	30.6	D	1	8	6	0	1-----	5730	WBT
WBL	5731	-	-	10	40	25	1.0	30.6	D	-	8	6	0	1-----	5731	WBL
WBR	5732	-	-	10	40	25	1.0	30.6	D	-	8	6	0	1-----	5732	WBR
NBT	5740	3600	35	691	3154	22	1.0	.5	A	1	82	80	8	-2----	5740	NBT
NBL	5741	1400	35	10	1244	1	1.0	.4	A	0	82	80	8	-2----	5741	NBL
NBR	5742	-	-	10	46	22	1.0	.5	A	-	82	80	8	-2----	5742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1866   WEIGHTED AVERAGE DELAY = 1.7   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .33/A   WEIGHTED AVERAGE DELAY = 1.6   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 58 - FAIRWAY DR/"F"S @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	5810	1800	35	74	181	41	1.0	28.5	D+	2	13	11	0	1-----	5810	EBT
EBL	5811	1400	35	11	171	6	1.0	26.6	D+	0	13	11	0	1-----	5811	EBL
EBR	5812	-	-	16	39	41	1.0	28.5	D+	-	13	11	0	1-----	5812	EBR
* SBT	5820	3600	35	803	1541	52	1.0	14.5	B	7	41	39	49	--3---	5820	SBT *
* SBL	5821	1700	35	336	642	52	1.0	17.2	C	6	36	34	13	-2----	5821	SBL *
SBR	5822	-	-	10	19	52	1.0	14.5	B	-	41	39	49	--3---	5822	SBR
* WBT	5830	3600	35	33	61	54	1.0	29.4	D+	3	13	11	0	1-----	5830	WBT *
WBL	5831	1300	35	70	159	44	1.0	29.2	D+	2	13	11	0	1-----	5831	WBL
WBR	5832	-	-	206	379	54	1.0	29.4	D+	-	13	11	0	1-----	5832	WBR
NBT	5840	3600	35	503	1260	40	1.0	13.4	B	5	41	39	49	--3---	5840	NBT
NBL	5841	1700	35	10	642	2	1.0	13.3	B	0	36	34	13	-2----	5841	NBL
NBR	5842	-	-	120	300	40	1.0	13.4	B	-	41	39	49	--3---	5842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2192   WEIGHTED AVERAGE DELAY = 17.3   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .52/A   WEIGHTED AVERAGE DELAY = 17.7   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 59 - "H" STREET @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5910	1800	35	10	31	32	1.0	24.2	C	2	19	17	0	1-----	5910	EBT *
EBL	5911	-	-	53	165	32	1.0	24.2	C	-	19	17	0	1-----	5911	EBL
EBR	5912	-	-	46	143	32	1.0	24.2	C	-	19	17	0	1-----	5912	EBR
* SBT	5920	3600	35	836	2680	31	1.0	2.5	A	3	71	69	19	-2----	5920	SBT *
SBL	5921	1400	35	10	1073	1	1.0	1.9	A	0	71	69	19	-2----	5921	SBL
SBR	5922	-	-	25	80	31	1.0	2.5	A	-	71	69	19	-2----	5922	SBR
WBT	5930	1800	35	10	60	17	1.0	23.3	C	1	19	17	0	1-----	5930	WBT
WBL	5931	-	-	10	60	17	1.0	23.3	C	-	19	17	0	1-----	5931	WBL
WBR	5932	-	-	37	221	17	1.0	23.3	C	-	19	17	0	1-----	5932	WBR
NBT	5940	3600	35	515	2707	19	1.0	2.2	A	1	71	69	19	-2----	5940	NBT
NBL	5941	1400	35	14	1073	1	1.0	1.9	A	0	71	69	19	-2----	5941	NBL
NBR	5942	-	-	10	53	19	1.0	2.2	A	-	71	69	19	-2----	5942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1576   WEIGHTED AVERAGE DELAY = 4.6   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .31/A   WEIGHTED AVERAGE DELAY = 4.9   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 60 - VALLEY BLVD @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	6010	3600	35	339	530	64	1.0	23.8	C	6	25	23	10	-2----	6010	EBT *
EBL	6011	3200	35	89	284	31	1.0	29.4	D+	1	10	8	0	1-----	6011	EBL
EBR	6012	-	-	249	390	64	1.0	23.8	C	-	25	23	10	-2----	6012	EBR
* SBT	6020	3600	35	810	1280	63	1.0	15.8	C	9	41	39	49	---4--	6020	SBT *
SBL	6021	1700	35	10	227	4	1.0	25.9	D+	0	14	12	35	--3---	6021	SBL
SBR	6022	-	-	177	280	63	1.0	15.8	C	-	41	39	49	---4--	6022	SBR
WBT	6030	3600	35	165	719	23	1.0	20.2	C	2	25	23	10	-2----	6030	WBT
* WBL	6031	3200	35	174	284	61	1.0	32.9	D	2	10	8	0	1-----	6031	WBL *
WBR	6032	-	-	46	201	23	1.0	20.2	C	-	25	23	10	-2----	6032	WBR
NBT	6040	3600	35	351	1148	31	1.0	12.7	B	4	41	39	49	---4--	6040	NBT
* NBL	6041	1700	35	141	227	62	1.0	31.8	D	3	14	12	35	--3---	6041	NBL *
NBR	6042	-	-	126	412	31	1.0	12.7	B	-	41	39	49	---4--	6042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2677   WEIGHTED AVERAGE DELAY = 19.8   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .63/B   WEIGHTED AVERAGE DELAY = 21.1   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 61 - FAIRWAY DRIVE @ SPERRY DRIVE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	6110	3600	35	520	903	58	1.0	23.0	C	5	25	23	17	-2----	6110	EBT	*
	EBL	6111	1700	35	20	283	7	1.0	24.1	C	0	17	15	0	1-----	6111	EBL	
	EBR	6112	-	-	10	17	58	1.0	23.0	C	-	25	23	17	-2----	6112	EBR	
	SBT	6120	1800	35	10	196	5	1.0	8.4	B	1	48	46	42	--3---	6120	SBT	
	SBL	6121	-	-	10	196	5	1.0	8.4	B	-	48	46	42	--3---	6121	SBL	
	SBR	6122	-	-	27	529	5	1.0	8.4	B	-	48	46	42	--3---	6122	SBR	
	WBT	6130	3600	35	191	874	22	1.0	20.1	C	2	25	23	17	-2----	6130	WBT	
*	WBL	6131	1700	35	169	283	60	1.0	29.0	D+	4	17	15	0	1-----	6131	WBL	*
	WBR	6132	-	-	10	46	22	1.0	20.1	C	-	25	23	17	-2----	6132	WBR	
*	NBT	6140	1800	35	10	17	58	1.0	12.4	B	9	48	46	42	--3---	6140	NBT	*
	NBL	6141	1300	35	77	664	12	1.0	8.7	B	1	48	46	42	--3---	6141	NBL	
	NBR	6142	-	-	525	903	58	1.0	12.4	B	-	48	46	42	--3---	6142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1579   WEIGHTED AVERAGE DELAY = 18.6   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .58/A   WEIGHTED AVERAGE DELAY = 19.2   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 62 - I-10 E/B @ MT VERNON AVE   C.E. UPDATE   AM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	6210	3600	35	652	2160	30	1.0	9.0	B	5	74	72	0	12----	6210	EBT	
*	EBL	6211	1700	35	217	425	51	1.0	30.4	D	6	32	30	0	1-----	6211	EBL	*
	SBL	6221	3818	35	462	1400	33	1.0	20.9	C	5	46	44	74	--3---	6221	SBL	
*	SBR	6222	1182	35	217	433	50	1.0	23.3	C	6	46	44	74	--3---	6222	SBR	*
*	WBT	6230	3600	35	607	1200	51	1.0	24.7	C	8	42	40	32	-2----	6230	WBT	*
	WBR	6232	1800	35	110	600	18	1.0	21.6	C	3	42	40	32	-2----	6232	WBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2265   WEIGHTED AVERAGE DELAY = 19.7   DELAY LOS = C   CYCLE = 120
* CRITICAL MOVEMENT SUMMARY : ICU = .51/A   WEIGHTED AVERAGE DELAY = 25.6   DELAY LOS = D+   SYSTEM (BG) OFFSET = 116

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 63 - "M" STREET @ FOGG STREET C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/24/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	6310	1800	35	40	1168	3	1.0	1.3	A	0	75	73	0	1-----	6310	EBT
EBR	6312	-	-	10	292	3	1.0	1.3	A	-	75	73	0	1-----	6312	EBR
* WBT	6330	1800	35	13	202	6	1.0	1.3	A	0	75	73	0	1-----	6330	WBT *
WBL	6331	-	-	81	1258	6	1.0	1.3	A	-	75	73	0	1-----	6331	WBL
NBL	6341	1700	35	10	246	4	1.0	25.2	D+	0	15	13	75	-2----	6341	NBL
* NBR	6342	1800	35	17	260	7	1.0	25.3	D+	0	15	13	75	-2----	6342	NBR *

INTERSECTION SUMMARY : TOTAL FLOW = 171 WEIGHTED AVERAGE DELAY = 5.1 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .06/A WEIGHTED AVERAGE DELAY = 5.0 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 64 - "M" STREET @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/24/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	6411	1004	35	57	123	46	1.0	30.1	D	1	13	11	0	1-----	6411	EBL *
EBR	6412	2496	35	74	305	24	1.0	27.3	D+	1	13	11	0	1-----	6412	EBR
* SBT	6420	3600	35	1115	2413	46	1.0	3.8	A	6	68	66	22	--3---	6420	SBT *
SBR	6422	-	-	105	227	46	1.0	3.8	A	-	68	66	22	--3---	6422	SBR
NBT	6440	3600	35	681	3000	23	1.0	1.2	A	1	77	75	13	-23---	6440	NBT
* NBL	6441	1700	35	60	132	45	1.0	32.0	D	1	9	7	13	-2----	6441	NBL *

INTERSECTION SUMMARY : TOTAL FLOW = 2092 WEIGHTED AVERAGE DELAY = 5.3 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .46/A WEIGHTED AVERAGE DELAY = 6.2 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 65 - COOLEY DRIVE @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	6510	1800	35	12	29	41	1.0	29.2	D+	2	12	10	0	1-----	6510	EBT
EBL	6511	-	-	44	106	41	1.0	29.2	D+	-	12	10	0	1-----	6511	EBL
EBR	6512	-	-	27	65	41	1.0	29.2	D+	-	12	10	0	1-----	6512	EBR
* SBT	6520	5400	35	715	1639	44	1.0	16.0	C	5	36	34	54	--3---	6520	SBT *
SBL	6521	1700	35	242	756	32	1.0	12.4	B	4	42	40	12	-2----	6521	SBL
SBR	6522	-	-	175	401	44	1.0	16.0	C	-	36	34	54	--3---	6522	SBR
WBT	6530	3600	35	33	400	8	1.0	27.3	D+	0	12	10	0	1-----	6530	WBT
WBL	6531	1700	35	63	189	33	1.0	28.5	D+	1	12	10	0	1-----	6531	WBL
* WBR	6532	1800	35	90	200	45	1.0	29.6	D+	2	12	10	0	1-----	6532	WBR *
NBT	6540	5400	35	576	1406	41	1.0	15.8	C	5	36	34	54	--3---	6540	NBT
* NBL	6541	1700	35	321	756	42	1.0	13.3	B	5	42	40	12	-2----	6541	NBL *
NBR	6542	-	-	260	634	41	1.0	15.8	C	-	36	34	54	--3---	6542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2558   WEIGHTED AVERAGE DELAY = 16.6   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .43/A   WEIGHTED AVERAGE DELAY = 16.3   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 66 - SAN ANTONIO DRI @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	6610	1800	35	38	479	8	1.0	13.7	B	1	36	34	0	1-----	6610	EBT
* EBL	6611	1700	35	224	642	35	1.0	15.4	C	4	36	34	0	1-----	6611	EBL *
EBR	6612	-	-	16	201	8	1.0	13.7	B	-	36	34	0	1-----	6612	EBR
SBT	6620	5400	35	730	2065	35	1.0	11.7	B	4	44	42	46	--3---	6620	SBT
* SBL	6621	1700	35	55	151	36	1.0	30.1	D	1	10	8	36	-2----	6621	SBL *
SBR	6622	-	-	161	455	35	1.0	11.7	B	-	44	42	46	--3---	6622	SBR
WBT	6630	1800	35	10	103	10	1.0	13.8	B	1	36	34	0	1-----	6630	WBT
WBL	6631	-	-	10	103	10	1.0	13.8	B	-	36	34	0	1-----	6631	WBL
WBR	6632	-	-	46	474	10	1.0	13.8	B	-	36	34	0	1-----	6632	WBR
* NBT	6640	5400	35	856	2418	35	1.0	11.7	B	4	44	42	46	--3---	6640	NBT *
NBL	6641	1700	35	48	151	32	1.0	29.7	D+	1	10	8	36	-2----	6641	NBL
NBR	6642	-	-	36	102	35	1.0	11.7	B	-	44	42	46	--3---	6642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2230   WEIGHTED AVERAGE DELAY = 13.0   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .35/A   WEIGHTED AVERAGE DELAY = 13.3   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 67 - CENTER POINT DR @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/24/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	6710	1800	35	10	60	17	1.0	28.2	D+	1	11	9	0	1-----	6710	EBT	
	EBL	6711	-	-	10	60	17	1.0	28.2	D+	-	11	9	0	1-----	6711	EBL	
	EBR	6712	-	-	10	60	17	1.0	28.2	D+	-	11	9	0	1-----	6712	EBR	
	SBT	6720	5400	35	585	3598	16	1.0	4.0	A	1	63	61	27	--3---	6720	SBT	
	SBL	6721	1700	35	33	264	12	1.0	24.9	C	1	16	14	11	-2----	6721	SBL	
	SBR	6722	-	-	10	62	16	1.0	4.0	A	-	63	61	27	--3---	6722	SBR	
*	WBT	6730	1800	35	10	35	28	1.0	28.8	D+	1	11	9	0	1-----	6730	WBT	*
	WBL	6731	-	-	31	109	28	1.0	28.8	D+	-	11	9	0	1-----	6731	WBL	
	WBR	6732	-	-	10	35	28	1.0	28.8	D+	-	11	9	0	1-----	6732	WBR	
*	NBT	6740	5400	35	979	3496	28	1.0	4.4	A	3	63	61	27	--3---	6740	NBT	*
*	NBL	6741	1700	35	74	264	28	1.0	25.7	D+	2	16	14	11	-2----	6741	NBL	*
	NBR	6742	-	-	46	164	28	1.0	4.4	A	-	63	61	27	--3---	6742	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1808 WEIGHTED AVERAGE DELAY = 6.6 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .28/A WEIGHTED AVERAGE DELAY = 6.9 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 68 - WASHINGTON ST W @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN AM .Peak Period 07/24/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	6810	3600	35	685	1000	68	1.0	23.5	C	7	27	25	0	1-----	6810	EBT	*
	EBL	6811	3200	35	90	889	10	1.0	18.4	C	1	27	25	0	1-----	6811	EBL	
	EBR	6812	1800	35	66	500	13	1.0	18.6	C	1	27	25	0	1-----	6812	EBR	
	SBT	6820	5400	35	99	540	18	1.0	28.3	D+	0	11	9	79	---4--	6820	SBT	
	SBL	6821	3200	35	505	924	55	1.0	21.1	C	5	28	26	51	--3---	6821	SBL	
	SBR	6822	1800	35	88	1800	5	1.0	.0	A	0	90	90	0	1234--	6822	SBR	
*	WBT	6830	3600	35	610	880	69	1.0	25.3	D+	7	24	22	27	-2----	6830	WBT	*
	WBL	6831	3200	35	27	782	3	1.0	19.7	C	0	24	22	27	-2----	6831	WBL	
	WBR	6832	1800	35	727	1800	40	1.0	.1	A	0	90	90	0	1234--	6832	WBR	
*	NBT	6840	5400	35	366	540	68	1.0	32.2	D	3	11	9	79	---4--	6840	NBT	*
*	NBL	6841	1700	35	346	491	70	1.0	25.0	D+	8	28	26	51	--3---	6841	NBL	*
	NBR	6842	1800	35	26	1800	1	1.0	.0	A	0	90	90	0	1234--	6842	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3635 WEIGHTED AVERAGE DELAY = 19.0 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .69/B WEIGHTED AVERAGE DELAY = 25.9 DELAY LOS = D+ SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
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MONITOR

INTERSECTION # 69 - I-215 N/B OFF R @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBL	6911	3200	35	773	1067	72	1.0	21.9	C	8	32	30	0	1-----	6911	EBL	*
	EBR	6912	1800	35	10	600	2	1.0	15.3	C	0	32	30	0	1-----	6912	EBR	
*	SBT	6920	3600	35	336	458	73	1.0	26.7	D+	7	23	21	67	--3---	6920	SBT	*
	SBR	6922	-	-	280	382	73	1.0	26.7	D+	-	23	21	0	123---	6922	SBR	
	NBT	6940	1800	35	564	1120	50	1.0	7.5	B	8	58	56	32	-23---	6940	NBT	
*	NBL	6941	1700	35	456	623	73	1.0	22.0	C	10	35	33	32	-2----	6941	NBL	*

INTERSECTION SUMMARY : TOTAL FLOW = 2419   WEIGHTED AVERAGE DELAY = 19.7   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .73/C   WEIGHTED AVERAGE DELAY = 23.5   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 70 - WASHINGTON ST E @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	7010	3600	35	717	1440	50	1.0	15.7	C	6	38	36	14	-2----	7010	EBT	
	EBR	7012	1800	35	453	1800	25	1.0	.0	A	0	90	90	0	123---	7012	EBR	
*	WBT	7030	3600	35	1457	2000	73	1.0	12.4	B	13	52	50	0	12----	7030	WBT	*
*	WBL	7031	1700	35	166	227	73	1.0	36.6	D-	4	14	12	0	1-----	7031	WBL	*
*	NBL	7041	2003	35	573	801	72	1.0	19.5	C	6	38	36	52	--3---	7041	NBL	*
	NBR	7042	3297	35	481	1319	36	1.0	14.5	B	4	38	36	52	--3---	7042	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3847   WEIGHTED AVERAGE DELAY = 13.9   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .72/C   WEIGHTED AVERAGE DELAY = 16.1   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
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INTERSECTION # 71 - WASHINGTON STRE @ BLUFF ROAD   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	7110	5400	35	1115	3621	31	1.0	4.0	A	3	65	63	6	-2----	7110	EBT
EBL	7111	1700	35	23	76	30	1.0	32.4	D	1	6	4	0	1-----	7111	EBL
EBR	7112	-	-	49	159	31	1.0	4.0	A	-	65	63	6	-2----	7112	EBR
* SBT	7120	1800	35	10	22	45	1.0	34.7	D	1	6	4	71	--3---	7120	SBT *
SBL	7121	-	-	14	31	45	1.0	34.7	D	-	6	4	71	--3---	7121	SBL
SBR	7122	-	-	12	27	45	1.0	34.7	D	-	6	4	71	--3---	7122	SBR
* WBT	7130	5400	35	1760	3759	47	1.0	4.7	A	6	65	63	6	-2----	7130	WBT *
* WBL	7131	1700	35	31	76	41	1.0	34.0	D	1	6	4	0	1-----	7131	WBL *
WBR	7132	-	-	10	21	47	1.0	4.7	A	-	65	63	6	-2----	7132	WBR
* NBT	7140	1800	35	10	22	46	1.0	29.1	D+	2	13	11	77	---4--	7140	NBT *
NBL	7141	-	-	91	198	46	1.0	29.1	D+	-	13	11	77	---4--	7141	NBL
NBR	7142	1800	35	39	220	18	1.0	27.0	D+	1	13	11	77	---4--	7142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3164   WEIGHTED AVERAGE DELAY = 6.3   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .46/A   WEIGHTED AVERAGE DELAY = 7.0   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 72 - WASHINGTON STRE @ MEADOW LANE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	7210	5400	35	955	3278	29	1.0	6.0	B	3	58	56	12	-2----	7210	EBT
* EBL	7211	1700	35	107	189	57	1.0	31.9	D	2	12	10	0	1-----	7211	EBL *
EBR	7212	-	-	24	82	29	1.0	6.0	B	-	58	56	12	-2----	7212	EBR
* SBT	7220	1800	35	10	17	61	1.0	27.1	D+	5	20	18	70	--3---	7220	SBT *
SBL	7221	-	-	49	81	61	1.0	27.1	D+	-	20	18	70	--3---	7221	SBL
SBR	7222	-	-	159	263	61	1.0	27.1	D+	-	20	18	70	--3---	7222	SBR
* WBT	7230	5400	35	1973	3343	59	1.0	8.0	B	9	58	56	12	-2----	7230	WBT *
WBL	7231	1700	35	51	189	27	1.0	28.1	D+	1	12	10	0	1-----	7231	WBL
WBR	7232	-	-	10	17	59	1.0	8.0	B	-	58	56	12	-2----	7232	WBR
NBT	7240	1800	35	10	27	37	1.0	24.0	C	3	20	18	70	--3---	7240	NBT
NBL	7241	-	-	94	251	37	1.0	24.0	C	-	20	18	70	--3---	7241	NBL
NBR	7242	-	-	31	83	37	1.0	24.0	C	-	20	18	70	--3---	7242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3473   WEIGHTED AVERAGE DELAY = 10.3   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .59/A   WEIGHTED AVERAGE DELAY = 10.9   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 73 - WASHINGTON STRE @ COOLEY DR/BARTO   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

	APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH	
	(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)	
	EBT	7310	5400	35	751	2280	33	1.0	13.3	B	4	40	38	30	--3---	7310	EBT	
	EBL	7311	1700	35	80	170	47	1.0	30.7	D	2	11	9	0	1-----	7311	EBL	
	EBR	7312	1800	35	10	1800	1	1.0	.0	A	0	90	90	0	12345-	7312	EBR	
	SBT	7320	3600	35	47	520	9	1.0	25.4	D+	0	15	13	75	----5-	7320	SBT	
*	SBL	7321	1700	35	30	57	53	1.0	39.6	D-	1	5	3	70	---4--	7321	SBL	*
*	SBR	7322	1800	35	130	260	50	1.0	28.4	D+	3	15	13	75	----5-	7322	SBR	*
*	WBT	7330	5400	35	1637	3330	49	1.0	6.8	B	7	59	57	11	-23---	7330	WBT	*
*	WBL	7331	3200	35	490	996	49	1.0	19.5	C	5	30	28	0	12----	7331	WBL	*
	WBR	7332	-	-	44	90	49	1.0	6.8	B	-	59	57	11	-23---	7332	WBR	
	NBT	7340	3600	35	117	520	23	1.0	25.9	D+	1	15	13	75	----5-	7340	NBT	
	NBL	7341	1700	35	10	57	18	1.0	32.3	D	0	5	3	70	---4--	7341	NBL	
	NBR	7342	1800	35	580	1800	32	1.0	.0	A	0	90	90	0	12345-	7342	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 3926   WEIGHTED AVERAGE DELAY = 10.9   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .49/A   WEIGHTED AVERAGE DELAY = 11.1   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 74 - WASHINGTON STRE @ MOHAVE DRIVE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

	APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH	
	(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)	
	EBT	7410	5400	35	1161	3629	32	1.0	4.6	A	3	63	61	5	-2----	7410	EBT	
	EBL	7411	1700	35	10	57	18	1.0	32.3	D	0	5	3	0	1-----	7411	EBL	
	EBR	7412	-	-	10	31	32	1.0	4.6	A	-	63	61	5	-2----	7412	EBR	
	SBT	7420	1800	35	10	111	9	1.0	21.1	C	1	22	20	68	--3---	7420	SBT	
	SBL	7421	-	-	16	178	9	1.0	21.1	C	-	22	20	68	--3---	7421	SBL	
	SBR	7422	-	-	10	111	9	1.0	21.1	C	-	22	20	68	--3---	7422	SBR	
*	WBT	7430	5400	35	1956	3636	54	1.0	5.8	B	8	63	61	5	-2----	7430	WBT	*
*	WBL	7431	1700	35	18	57	32	1.0	33.5	D	0	5	3	0	1-----	7431	WBL	*
	WBR	7432	-	-	13	24	54	1.0	5.8	B	-	63	61	5	-2----	7432	WBR	
*	NBT	7440	1800	35	10	19	53	1.0	24.5	C	5	22	20	68	--3---	7440	NBT	*
	NBL	7441	-	-	121	230	53	1.0	24.5	C	-	22	20	68	--3---	7441	NBL	
	NBR	7442	-	-	79	150	53	1.0	24.5	C	-	22	20	68	--3---	7442	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 3414   WEIGHTED AVERAGE DELAY = 6.9   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .53/A   WEIGHTED AVERAGE DELAY = 7.8   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 75 - WASHINGTON STRE @ RECHE CANYON RO   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	7510	5400	35	1161	1560	74	1.0	23.5	C	8	28	26	9	-2----	7510	EBT *
EBR	7512	1800	35	95	520	18	1.0	18.3	C	2	28	26	9	-2----	7512	EBR
WBT	7530	5400	35	1462	2100	70	1.0	18.3	C	10	37	35	0	12----	7530	WBT
* WBL	7531	3200	35	184	249	74	1.0	38.7	D-	2	9	7	0	1-----	7531	WBL *
* NBL	7541	5250	35	525	705	74	1.0	11.9	B	13	53	51	37	--3---	7541	NBL *
NBR	7542	-	-	1689	2270	74	1.0	11.9	B	-	53	51	37	--3---	7542	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 5116   WEIGHTED AVERAGE DELAY = 17.5   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .74/C   WEIGHTED AVERAGE DELAY = 17.1   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 76 - REDLANDS BLVD @ HUNTS LANE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	7610	3600	35	32	817	4	1.0	15.4	C	0	32	30	11	-2----	7610	EBT
EBL	7611	1700	35	42	170	25	1.0	28.6	D+	1	11	9	0	1-----	7611	EBL
EBR	7612	-	-	15	383	4	1.0	15.4	C	-	32	30	11	-2----	7612	EBR
SBT	7620	3600	35	188	1044	18	1.0	14.2	B	2	36	34	54	---4--	7620	SBT
* SBL	7621	1700	35	172	170	101**	1.0	89.4	F	6	11	9	43	--3---	7621	SBL *
SBR	7622	-	-	57	316	18	1.0	14.2	B	-	36	34	54	---4--	7622	SBR
WBT	7630	3600	35	133	1200	11	1.0	15.8	C	1	32	30	11	-2----	7630	WBT
* WBL	7631	1700	35	160	170	94**	1.0	69.4	F	4	11	9	0	1-----	7631	WBL *
* WBR	7632	1800	35	768	820	94**	1.0	31.5	D	18	43	41	11	-23---	7632	WBR *
* NBT	7640	3600	35	1188	1245	95**	1.0	32.5	D	15	36	34	54	---4--	7640	NBT *
NBL	7641	1700	35	33	170	19	1.0	28.3	D+	1	11	9	43	--3---	7641	NBL
NBR	7642	-	-	110	115	95**	1.0	32.5	D	-	36	34	54	---4--	7642	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 2898   WEIGHTED AVERAGE DELAY = 34.9   DELAY LOS = D   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .95/E   WEIGHTED AVERAGE DELAY = 38.7   DELAY LOS = D-   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 77 - COOLEY LANE @ HUNTS LANE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBL	7711	1700	35	316	604	52	1.0	18.2	C	6	34	32	0	1-----	7711	EBL	*
	EBR	7712	1800	35	56	640	9	1.0	14.7	B	1	34	32	0	1-----	7712	EBR	
	SBT	7720	3600	35	200	1193	17	1.0	6.1	B	2	56	54	34	-2----	7720	SBT	
	SBR	7722	-	-	162	967	17	1.0	6.1	B	-	56	54	34	-2----	7722	SBR	
*	NBT	7740	3600	35	1128	2160	52	1.0	8.2	B	8	56	54	34	-2----	7740	NBT	*
	NBL	7741	1300	35	42	780	5	1.0	5.7	B	0	56	54	34	-2----	7741	NBL	

INTERSECTION SUMMARY : TOTAL FLOW = 1904   WEIGHTED AVERAGE DELAY = 9.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .52/A   WEIGHTED AVERAGE DELAY = 10.4   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 78 - WASHINGTON STRE @ HUNTS LANE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	7810	5400	35	1797	4920	37	1.0	.4	A	1	84	82	0	12----	7810	EBT	
*	EBL	7811	3200	35	1052	1529	69	1.0	14.9	B	10	45	43	0	1-----	7811	EBL	*
*	SBL	7821	1700	35	56	76	74	1.0	53.4	E	1	6	4	84	--3---	7821	SBL	*
	SBR	7822	3600	35	193	1960	10	1.0	7.5	B	1	51	49	0	1-3---	7822	SBR	
*	WBT	7830	5400	35	1452	2048	71	1.0	17.6	C	10	39	37	45	-2----	7830	WBT	*
	WBR	7832	-	-	122	172	71	1.0	17.6	C	-	39	37	45	-2----	7832	WBR	

INTERSECTION SUMMARY : TOTAL FLOW = 4672   WEIGHTED AVERAGE DELAY = 10.4   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .70/B   WEIGHTED AVERAGE DELAY = 17.3   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 79 - WASHINGTON STRE @ WEIR ROAD   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	7910	5400	35	1800	4920	37	1.0	.4	A	1	84	82	0	12----	7910	EBT	*
	EBL	7911	1700	35	53	151	35	1.0	30.0	D+	1	10	8	0	1-----	7911	EBL	
*	SBL	7921	1700	35	29	76	38	1.0	33.5	D	1	6	4	84	--3---	7921	SBL	*
	SBR	7922	1800	35	12	80	15	1.0	31.5	D	0	6	4	84	--3---	7922	SBR	
	WBT	7930	5400	35	1562	4320	36	1.0	2.0	A	3	74	72	10	-2----	7930	WBT	
	WBR	7932	1800	35	13	1440	1	1.0	1.4	A	0	74	72	10	-2----	7932	WBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3469   WEIGHTED AVERAGE DELAY = 2.0   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .37/A   WEIGHTED AVERAGE DELAY = 1.0   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 80 - WASHINGTON STRE @ WATERMAN AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	8010	5400	35	1293	3275	39	1.0	6.9	B	5	57	55	0	12----	8010	EBT	
*	EBL	8011	3200	35	774	960	81	1.0	25.9	D+	8	29	27	0	1-----	8011	EBL	*
	EBR	8012	-	-	10	25	39	1.0	6.9	B	-	57	55	0	12----	8012	EBR	
	SBT	8020	1800	35	10	620	2	1.0	14.8	B	0	33	31	57	--34--	8020	SBT	
*	SBL	8021	3200	35	608	818	74	1.0	26.1	D+	7	25	23	57	--3---	8021	SBL	*
*	SBR	8022	1800	35	437	620	70	1.0	22.1	C	9	33	31	57	--34--	8022	SBR	*
*	WBT	8030	5400	35	1145	1560	73	1.0	23.3	C	8	28	26	29	-2----	8030	WBT	*
	WBL	8031	1700	35	10	491	2	1.0	17.4	C	0	28	26	29	-2----	8031	WBL	
	WBR	8032	1800	35	416	1020	41	1.0	8.5	B	6	53	51	29	-23---	8032	WBR	
	NBT	8040	1800	35	10	40	25	1.0	30.6	D	1	8	6	82	---4--	8040	NBT	
	NBL	8041	-	-	10	40	25	1.0	30.6	D	-	8	6	82	---4--	8041	NBL	
	NBR	8042	-	-	10	40	25	1.0	30.6	D	-	8	6	82	---4--	8042	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 4733   WEIGHTED AVERAGE DELAY = 18.2   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .75/C   WEIGHTED AVERAGE DELAY = 24.4   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 81 - WASHINGTON STRE @ I215 N/B ON RAM   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	8110	5400	35	1086	5400	20	1.0	.0	A	0	90	90	0	12----	8110	EBT
* EBL	8111	1700	35	82	340	24	1.0	23.1	C	2	20	18	0	1-----	8111	EBL *
* WBT	8130	5400	35	1794	3293	54	1.0	3.6	A	7	70	68	20	-2----	8130	WBT *
WBR	8132	-	-	429	787	54	1.0	3.6	A	-	70	68	20	-2----	8132	WBR

INTERSECTION SUMMARY :   TOTAL FLOW = 3391   WEIGHTED AVERAGE DELAY = 2.9   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .48/A   WEIGHTED AVERAGE DELAY = 4.3   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 82 - OLIVE STREET @ MERIDIAN AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	8210	1800	35	93	435	21	1.0	14.9	B	2	35	33	0	1-----	8210	EBT
EBL	8211	-	-	20	94	21	1.0	14.9	B	-	35	33	0	1-----	8211	EBL
EBR	8212	-	-	28	131	21	1.0	14.9	B	-	35	33	0	1-----	8212	EBR
* SBT	8220	1800	35	148	384	39	1.0	7.6	B	5	55	53	35	-2----	8220	SBT *
SBL	8221	-	-	39	101	39	1.0	7.6	B	-	55	53	35	-2----	8221	SBL
SBR	8222	-	-	222	575	39	1.0	7.6	B	-	55	53	35	-2----	8222	SBR
* WBT	8230	1800	35	237	609	39	1.0	16.3	C	5	35	33	0	1-----	8230	WBT *
WBL	8231	-	-	10	26	39	1.0	16.3	C	-	35	33	0	1-----	8231	WBL
WBR	8232	-	-	10	26	39	1.0	16.3	C	-	35	33	0	1-----	8232	WBR
NBT	8240	1800	35	27	325	8	1.0	6.1	B	1	55	53	35	-2----	8240	NBT
NBL	8241	-	-	51	614	8	1.0	6.1	B	-	55	53	35	-2----	8241	NBL
NBR	8242	-	-	10	120	8	1.0	6.1	B	-	55	53	35	-2----	8242	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 895   WEIGHTED AVERAGE DELAY = 11.1   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .39/A   WEIGHTED AVERAGE DELAY = 11.0   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 83 - VALLEY BOULEVAR @ MERIDIAN AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/24/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	8310	3600	35	1269	2840	45	1.0	2.5	A	5	73	71	0	12----	8310	EBT *
EBL	8311	1700	35	10	57	18	1.0	32.3	D	0	5	3	0	1-----	8311	EBL
* SBL	8321	1700	35	130	283	46	1.0	26.6	D+	3	17	15	73	--3---	8321	SBL *
SBR	8322	1800	35	62	300	21	1.0	24.7	C	1	17	15	73	--3---	8322	SBR
* WBT	8330	3600	35	1203	2590	46	1.0	3.8	A	6	68	66	5	-2----	8330	WBT *
WBR	8332	-	-	23	50	46	1.0	3.8	A	-	68	66	5	-2----	8332	WBR

INTERSECTION SUMMARY : TOTAL FLOW = 2697   WEIGHTED AVERAGE DELAY = 4.9   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .46/A   WEIGHTED AVERAGE DELAY = 4.3   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 85 - SLOVER AVENUE @ PEPPER AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	8511	1700	35	678	926	73	1.0	14.1	B	13	51	49	0	1-----	8511	EBL *
EBR	8512	1800	35	10	980	1	1.0	7.2	B	0	51	49	0	1-----	8512	EBR
* SBT	8520	3600	35	358	497	72	1.0	18.2	C	11	39	37	51	-2----	8520	SBT *
SBR	8522	-	-	709	983	72	1.0	18.2	C	-	39	37	51	-2----	8522	SBR
NBT	8540	3600	35	51	1480	3	1.0	12.1	B	0	39	37	51	-2----	8540	NBT
NBL	8541	1400	35	10	576	2	1.0	12.0	B	0	39	37	51	-2----	8541	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 1816   WEIGHTED AVERAGE DELAY = 16.4   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .73/C   WEIGHTED AVERAGE DELAY = 16.6   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 86 - AGUA MANSA ROAD @ RIVERSIDE AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	8610	1800	35	151	329	46	1.0	22.1	C	4	25	23	0	1-----	8610	EBT	
*	EBL	8611	1200	35	219	307	71	1.0	28.7	D+	5	25	23	0	1-----	8611	EBL	*
	EBR	8612	-	-	60	131	46	1.0	22.1	C	-	25	23	0	1-----	8612	EBR	
*	SBT	8620	3600	35	1669	2305	72	1.0	7.1	B	13	65	63	25	-2----	8620	SBT	*
	SBL	8621	1400	35	10	980	1	1.0	3.1	A	0	65	63	25	-2----	8621	SBL	
	SBR	8622	-	-	156	215	72	1.0	7.1	B	-	65	63	25	-2----	8622	SBR	
	WBT	8630	1800	35	170	383	44	1.0	21.9	C	4	25	23	0	1-----	8630	WBT	
	WBL	8631	1400	35	10	358	3	1.0	19.1	C	0	25	23	0	1-----	8631	WBL	
	WBR	8632	-	-	34	77	44	1.0	21.9	C	-	25	23	0	1-----	8632	WBR	
	NBT	8640	3600	35	1732	2506	69	1.0	6.6	B	12	65	63	25	-2----	8640	NBT	
	NBL	8641	1300	35	40	910	4	1.0	3.2	A	0	65	63	25	-2----	8641	NBL	
	NBR	8642	-	-	10	14	69	1.0	6.6	B	-	65	63	25	-2----	8642	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 4261   WEIGHTED AVERAGE DELAY = 9.4   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .72/C   WEIGHTED AVERAGE DELAY = 9.4   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 87 - BARTON ROAD @ WASHINGTON STRE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	SBT	8720	3600	35	246	1640	15	1.0	10.9	B	2	43	41	47	-2----	8720	SBT	
	SBL	8721	1400	35	10	638	2	1.0	10.2	B	0	43	41	47	-2----	8721	SBL	
*	WBL	8731	1700	35	160	850	19	1.0	9.5	B	2	47	45	0	1-----	8731	WBL	*
	WBR	8732	1800	35	10	900	1	1.0	8.6	B	0	47	45	0	1-----	8732	WBR	
*	NBT	8740	3600	35	120	637	19	1.0	11.1	B	2	43	41	47	-2----	8740	NBT	*
	NBR	8742	-	-	189	1003	19	1.0	11.1	B	-	43	41	47	-2----	8742	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 735   WEIGHTED AVERAGE DELAY = 10.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .19/A   WEIGHTED AVERAGE DELAY = 10.6   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 88 - WASHINGTON STRE @ RIVERSIDE AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   AM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	SBT	8820	3600	35	1568	2880	54	1.0	2.6	A	7	74	72	16	-23---	8820	SBT	
*	SBL	8821	1700	35	172	227	76	1.0	38.2	D-	4	14	12	16	-2----	8821	SBL	*
*	WBL	8831	2290	35	267	356	75	1.0	33.7	D	3	16	14	0	1-----	8831	WBL	*
	WBR	8832	1210	35	141	188	75	1.0	38.2	D-	3	16	14	0	1-----	8832	WBR	
*	NBT	8840	3600	35	1622	2141	76	1.0	9.6	B	15	60	58	30	--3---	8840	NBT	*
	NBR	8842	-	-	136	179	76	1.0	9.6	B	-	60	58	30	--3---	8842	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 3906   WEIGHTED AVERAGE DELAY = 10.7   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .76/C   WEIGHTED AVERAGE DELAY = 14.8   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

With Project - P.M. Peak Hour

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 1 - RANDALL AVENUE @ PEPPER AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	110	1800	35	52	129	40	1.0	23.1	C	3	22	20	0	1-----	110	EBT
EBL	111	-	-	40	99	40	1.0	23.1	C	-	22	20	0	1-----	111	EBL
EBR	112	-	-	69	171	40	1.0	23.1	C	-	22	20	0	1-----	112	EBR
SBT	120	3600	35	933	2436	38	1.0	3.4	A	4	68	66	22	-2----	120	SBT
SBL	121	1400	35	25	1027	2	1.0	2.5	A	0	68	66	22	-2----	121	SBL
SBR	122	-	-	78	204	38	1.0	3.4	A	-	68	66	22	-2----	122	SBR
* WBT	130	1800	35	57	102	56	1.0	25.1	D+	5	22	20	0	1-----	130	WBT *
WBL	131	-	-	39	70	56	1.0	25.1	D+	-	22	20	0	1-----	131	WBL
WBR	132	-	-	128	229	56	1.0	25.1	D+	-	22	20	0	1-----	132	WBR
* NBT	140	3600	35	1330	2352	57	1.0	4.4	A	8	68	66	22	-2----	140	NBT *
NBL	141	1300	35	39	953	4	1.0	2.5	A	0	68	66	22	-2----	141	NBL
NBR	142	-	-	163	288	57	1.0	4.4	A	-	68	66	22	-2----	142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2953   WEIGHTED AVERAGE DELAY = 6.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .56/A   WEIGHTED AVERAGE DELAY = 7.1   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 2 - SAN BERNADINO A @ PEPPER AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	210	3600	35	300	923	32	1.0	17.1	C	3	32	30	0	1-----	210	EBT
EBL	211	1300	35	90	433	21	1.0	16.4	C	2	32	30	0	1-----	211	EBL
EBR	212	-	-	90	277	32	1.0	17.1	C	-	32	30	0	1-----	212	EBR
SBT	220	5400	35	960	2020	48	1.0	14.9	B	6	39	37	51	--3---	220	SBT
SBL	221	1700	35	116	321	36	1.0	24.5	C	3	19	17	32	-2----	221	SBL
SBR	222	-	-	95	200	48	1.0	14.9	B	-	39	37	51	--3---	222	SBR
* WBT	230	1800	35	384	600	64	1.0	21.1	C	8	32	30	0	1-----	230	WBT *
WBL	231	1400	35	38	467	8	1.0	15.7	C	1	32	30	0	1-----	231	WBL
WBR	232	1800	35	173	600	29	1.0	16.9	C	3	32	30	0	1-----	232	WBR
* NBT	240	5400	35	1391	2115	66	1.0	16.8	C	9	39	37	51	--3---	240	NBT *
* NBL	241	3200	35	388	604	64	1.0	27.3	D+	4	19	17	32	-2----	241	NBL *
NBR	242	-	-	69	105	66	1.0	16.8	C	-	39	37	51	--3---	242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4094   WEIGHTED AVERAGE DELAY = 18.0   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .65/B   WEIGHTED AVERAGE DELAY = 19.4   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 3 - VALLEY BLVD @ WILDROSE AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	310	3600	35	531	2600	20	1.0	3.1	A	2	67	65	0	12----	310	EBT
* EBL	311	3200	35	120	213	56	1.0	33.6	D	1	8	6	0	1-----	311	EBL *
* SBL	321	3200	35	396	747	53	1.0	23.6	C	4	23	21	67	--3---	321	SBL *
SBR	322	1800	35	80	420	19	1.0	21.1	C	2	23	21	67	--3---	322	SBR
WBT	330	3600	35	457	2280	20	1.0	5.3	B	2	59	57	8	-2----	330	WBT
* WBR	332	1800	35	586	1140	51	1.0	7.2	B	8	59	57	8	-2----	332	WBR *

INTERSECTION SUMMARY : TOTAL FLOW = 2170   WEIGHTED AVERAGE DELAY = 10.8   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .52/A   WEIGHTED AVERAGE DELAY = 16.0   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 4 - VALLEY BLVD @ PEPPER AVENUE   C.E. UPDATE   PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	410	3600	35	632	654	97**	1.0	44.6	E+	18	42	40	15	-2----	410	EBT *
EBL	411	3200	35	118	347	34	1.0	37.9	D-	2	15	13	0	1-----	411	EBL
EBR	412	-	-	528	546	97**	1.0	44.6	E+	-	42	40	15	-234--	412	EBR
SBT	420	5400	35	1206	1395	86	1.0	34.7	D	14	37	35	83	----5-	420	SBT
* SBL	421	3200	35	295	293	101**	1.0	85.0	F	7	13	11	57	--3---	421	SBL *
SBR	422	-	-	156	180	86	1.0	34.7	D	-	37	35	83	----5-	422	SBR
WBT	430	3600	35	643	850	76	1.0	29.2	D+	13	42	40	15	-2----	430	WBT
* WBL	431	3200	35	337	347	97**	1.0	72.1	F	5	15	13	0	1-----	431	WBL *
WBR	432	-	-	265	350	76	1.0	29.2	D+	-	42	40	15	-2----	432	WBR
* NBT	440	5400	35	1506	1568	96**	1.0	35.9	D-	22	50	48	70	---45-	440	NBT *
NBL	441	3200	35	630	640	98**	1.0	61.3	F	10	26	24	57	--34--	441	NBL
NBR	442	-	-	568	592	96**	1.0	35.9	D-	-	50	48	70	---45-	442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 6884   WEIGHTED AVERAGE DELAY = 42.5   DELAY LOS = E+   CYCLE = 120
* CRITICAL MOVEMENT SUMMARY : ICU = .97/E   WEIGHTED AVERAGE DELAY = 45.4   DELAY LOS = E   SYSTEM (BG) OFFSET = 116

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 5 - I-10 W/B @ PEPPER AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	SBT	520	5400	35	1460	1702	86	1.0	22.1	C	13	37	35	7	-2----	520	SBT	*
	SBR	522	-	-	341	398	86	1.0	22.1	C	-	37	35	7	-2----	522	SBR	
	WBL	531	1524	35	131	745	18	1.0	9.8	B	2	46	44	44	--3---	531	WBL	
*	WBR	532	1976	35	833	966	86	1.0	21.5	C	18	46	44	44	--3---	532	WBR	*
	NBT	540	5400	35	1943	2520	77	1.0	16.4	C	13	44	42	0	12----	540	NBT	
*	NBL	541	1700	35	78	94	83	1.0	61.1	F	2	7	5	0	1-----	541	NBL	*

INTERSECTION SUMMARY : TOTAL FLOW = 4786 WEIGHTED AVERAGE DELAY = 20.0 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .86/D WEIGHTED AVERAGE DELAY = 23.0 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 6 - I-10 E/B @ PEPPER AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBL	611	2444	35	564	679	83	1.0	29.5	D+	6	27	25	63	--3---	611	EBL	*
	EBR	612	1056	35	17	293	6	1.0	18.2	C	0	27	25	63	--3---	612	EBR	
	SBT	620	5400	35	878	3660	24	1.0	4.3	A	2	63	61	0	12----	620	SBT	
*	SBL	621	3200	35	739	889	83	1.0	28.2	D+	8	27	25	0	1-----	621	SBL	*
*	NBT	640	5400	35	1457	1682	87	1.0	22.9	C	13	36	34	27	-2----	640	NBT	*
	NBR	642	-	-	310	358	87	1.0	22.9	C	-	36	34	27	-2----	642	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3965 WEIGHTED AVERAGE DELAY = 20.7 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .85/D WEIGHTED AVERAGE DELAY = 25.4 DELAY LOS = D+ SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 7 - MILL STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
EBT	710	3600	35	564	851	66	1.0	20.6	C	8	32	30	15	-2----	710	EBT
EBL	711	3200	35	271	462	59	1.0	28.9	D+	3	15	13	0	1-----	711	EBL
EBR	712	-	-	231	349	66	1.0	20.6	C	-	32	30	15	-2----	712	EBR
SBT	720	3600	35	725	818	89	1.0	31.0	D	10	27	25	63	---4--	720	SBT
SBL	721	1700	35	223	264	84	1.0	43.2	E+	5	16	14	47	--3---	721	SBL
SBR	722	-	-	161	182	89	1.0	31.0	D	-	27	25	63	---4--	722	SBR
* WBT	730	3600	35	795	903	88	1.0	27.4	D+	12	32	30	15	-2----	730	WBT *
* WBL	731	1700	35	210	246	86	1.0	46.0	E	5	15	13	0	1-----	731	WBL *
WBR	732	-	-	261	297	88	1.0	27.4	D+	-	32	30	15	-2----	732	WBR
* NBT	740	3600	35	737	815	90	1.0	32.5	D	10	27	25	63	---4--	740	NBT *
* NBL	741	1700	35	240	264	91**	1.0	52.0	E	6	16	14	47	--3---	741	NBL *
NBR	742	-	-	167	185	90	1.0	32.5	D	-	27	25	63	---4--	742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4585 WEIGHTED AVERAGE DELAY = 30.9 DELAY LOS = D CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .89/D WEIGHTED AVERAGE DELAY = 33.4 DELAY LOS = D SYSTEM (BG) OFFSET = 86

INTERSECTION # 8 - JOHNSTON STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
EBT	810	1800	35	13	34	38	1.0	22.9	C	3	22	20	0	1-----	810	EBT
EBL	811	-	-	114	302	38	1.0	22.9	C	-	22	20	0	1-----	811	EBL
EBR	812	-	-	24	64	38	1.0	22.9	C	-	22	20	0	1-----	812	EBR
SBT	820	3600	35	907	2236	41	1.0	3.5	A	5	68	66	22	-2----	820	SBT
SBL	821	1300	35	65	953	7	1.0	2.6	A	0	68	66	22	-2----	821	SBL
SBR	822	-	-	164	404	41	1.0	3.5	A	-	68	66	22	-2----	822	SBR
* WBT	830	1800	35	18	44	41	1.0	23.2	C	3	22	20	0	1-----	830	WBT *
WBL	831	-	-	53	129	41	1.0	23.2	C	-	22	20	0	1-----	831	WBL
WBR	832	-	-	93	227	41	1.0	23.2	C	-	22	20	0	1-----	832	WBR
* NBT	840	3600	35	1045	2510	42	1.0	3.6	A	5	68	66	22	-2----	840	NBT *
NBL	841	1400	35	27	1027	3	1.0	2.5	A	0	68	66	22	-2----	841	NBL
NBR	842	-	-	54	130	42	1.0	3.6	A	-	68	66	22	-2----	842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2577 WEIGHTED AVERAGE DELAY = 5.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .41/A WEIGHTED AVERAGE DELAY = 6.1 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 9 - CITRUS STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	910	1800	35	13	29	45	1.0	21.9	C	4	25	23	0	1-----	910	EBT	*
	EBL	911	-	-	60	134	45	1.0	21.9	C	-	25	23	0	1-----	911	EBL	
	EBR	912	-	-	133	297	45	1.0	21.9	C	-	25	23	0	1-----	912	EBR	
	SBT	920	3600	35	901	2373	38	1.0	4.3	A	5	65	63	25	-2----	920	SBT	
	SBL	921	1400	35	15	980	2	1.0	3.1	A	0	65	63	25	-2----	921	SBL	
	SBR	922	-	-	56	147	38	1.0	4.3	A	-	65	63	25	-2----	922	SBR	
	WBT	930	1800	35	22	101	22	1.0	20.1	C	2	25	23	0	1-----	930	WBT	
	WBL	931	-	-	57	262	22	1.0	20.1	C	-	25	23	0	1-----	931	WBL	
	WBR	932	-	-	21	97	22	1.0	20.1	C	-	25	23	0	1-----	932	WBR	
*	NBT	940	3600	35	1070	2341	46	1.0	4.7	A	6	65	63	25	-2----	940	NBT	*
	NBL	941	1100	35	222	770	29	1.0	3.9	A	2	65	63	25	-2----	941	NBL	
	NBR	942	-	-	82	179	46	1.0	4.7	A	-	65	63	25	-2----	942	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2652   WEIGHTED AVERAGE DELAY = 6.4   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .45/A   WEIGHTED AVERAGE DELAY = 7.3   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 10 - LAUREL STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	1010	1800	35	19	41	46	1.0	27.2	D+	3	16	14	0	1-----	1010	EBT	*
	EBL	1011	-	-	48	104	46	1.0	27.2	D+	-	16	14	0	1-----	1011	EBL	
	EBR	1012	-	-	62	135	46	1.0	27.2	D+	-	16	14	0	1-----	1012	EBR	
	SBT	1020	3600	35	971	2705	36	1.0	2.0	A	3	74	72	16	-2----	1020	SBT	
	SBL	1021	1300	35	61	1040	6	1.0	1.4	A	0	74	72	16	-2----	1021	SBL	
	SBR	1022	-	-	63	175	36	1.0	2.0	A	-	74	72	16	-2----	1022	SBR	
	WBT	1030	1800	35	21	46	45	1.0	27.1	D+	3	16	14	0	1-----	1030	WBT	
	WBL	1031	-	-	33	73	45	1.0	27.1	D+	-	16	14	0	1-----	1031	WBL	
	WBR	1032	-	-	73	161	45	1.0	27.1	D+	-	16	14	0	1-----	1032	WBR	
*	NBT	1040	3600	35	1311	2816	47	1.0	2.3	A	5	74	72	16	-2----	1040	NBT	*
	NBL	1041	1300	35	96	1040	9	1.0	1.5	A	0	74	72	16	-2----	1041	NBL	
	NBR	1042	-	-	30	64	47	1.0	2.3	A	-	74	72	16	-2----	1042	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2788   WEIGHTED AVERAGE DELAY = 4.4   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .46/A   WEIGHTED AVERAGE DELAY = 4.5   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

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INTERSECTION # 11 - OLIVE STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	1110	1800	35	161	253	64	1.0	20.5	C	8	33	31	0	1-----	1110	EBT	*
	EBL	1111	-	-	118	185	64	1.0	20.5	C	-	33	31	0	1-----	1111	EBL	
	EBR	1112	-	-	116	182	64	1.0	20.5	C	-	33	31	0	1-----	1112	EBR	
	SBT	1120	3600	35	912	1987	46	1.0	7.3	B	6	57	55	33	-2----	1120	SBT	
	SBL	1121	1300	35	70	794	9	1.0	5.5	B	1	57	55	33	-2----	1121	SBL	
	SBR	1122	-	-	98	213	46	1.0	7.3	B	-	57	55	33	-2----	1122	SBR	
	WBT	1130	1800	35	161	342	47	1.0	18.0	C	6	33	31	0	1-----	1130	WBT	
	WBL	1131	-	-	67	142	47	1.0	18.0	C	-	33	31	0	1-----	1131	WBL	
	WBR	1132	-	-	64	136	47	1.0	18.0	C	-	33	31	0	1-----	1132	WBR	
*	NBT	1140	3600	35	1300	2080	63	1.0	8.8	B	10	57	55	33	-2----	1140	NBT	*
	NBL	1141	1200	35	166	733	23	1.0	6.1	B	2	57	55	33	-2----	1141	NBL	
	NBR	1142	-	-	75	120	63	1.0	8.8	B	-	57	55	33	-2----	1142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3308   WEIGHTED AVERAGE DELAY = 10.4   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .63/B   WEIGHTED AVERAGE DELAY = 11.4   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 12 - "C" STREET @ RANCHO AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/28/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	1210	1800	35	87	170	51	1.0	21.6	C	5	27	25	0	1-----	1210	EBT	
	EBL	1211	-	-	48	94	51	1.0	21.6	C	-	27	25	0	1-----	1211	EBL	
	EBR	1212	-	-	121	236	51	1.0	21.6	C	-	27	25	0	1-----	1212	EBR	
	SBT	1220	3600	35	935	2318	40	1.0	5.0	A	5	63	61	27	-2----	1220	SBT	
	SBL	1221	1300	35	69	881	8	1.0	3.8	A	1	63	61	27	-2----	1221	SBL	
	SBR	1222	-	-	49	122	40	1.0	5.0	A	-	63	61	27	-2----	1222	SBR	
*	WBT	1230	1800	35	135	214	63	1.0	23.5	C	7	27	25	0	1-----	1230	WBT	*
	WBL	1231	-	-	72	114	63	1.0	23.5	C	-	27	25	0	1-----	1231	WBL	
	WBR	1232	-	-	108	171	63	1.0	23.5	C	-	27	25	0	1-----	1232	WBR	
*	NBT	1240	3600	35	1434	2237	64	1.0	6.7	B	11	63	61	27	-2----	1240	NBT	*
	NBL	1241	1100	35	214	746	29	1.0	4.5	A	2	63	61	27	-2----	1241	NBL	
	NBR	1242	-	-	130	203	64	1.0	6.7	B	-	63	61	27	-2----	1242	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3402   WEIGHTED AVERAGE DELAY = 8.7   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .64/B   WEIGHTED AVERAGE DELAY = 9.6   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

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INTERSECTION # 13 - "E" STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
SBT	1320	3600	35	1023	3080	33	1.0	1.0	A	2	79	77	11	-2----	1320	SBT
SBL	1321	1300	35	74	1112	7	1.0	.8	A	0	79	77	11	-2----	1321	SBL
* WBL	1331	1700	35	22	39	56	1.0	32.5	D	2	11	9	0	1-----	1331	WBL *
WBR	1332	-	-	73	131	56	1.0	32.5	D	-	11	9	0	1-----	1332	WBR
* NBT	1340	3600	35	1736	3045	57	1.0	1.6	A	6	79	77	11	-2----	1340	NBT *
NBR	1342	-	-	20	35	57	1.0	1.6	A	-	79	77	11	-2----	1342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2948 WEIGHTED AVERAGE DELAY = 2.4 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .57/A WEIGHTED AVERAGE DELAY = 3.2 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 14 - VALLEY BLVD @ RANCHO AVENUE C.E. UPDATE PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	1410	3600	35	723	735	98**	1.0	49.3	E	18	40	38	8	-2----	1410	EBT *
EBL	1411	1700	35	73	85	86	1.0	80.5	F	2	8	6	0	1-----	1411	EBL
EBR	1412	-	-	399	405	98**	1.0	49.3	E	-	40	38	8	-2----	1412	EBR
* SBT	1420	5400	35	867	887	98**	1.0	56.4	E-	10	23	21	48	--3---	1420	SBT *
SBL	1421	1700	35	214	297	72	1.0	41.3	E+	7	23	21	48	--3---	1421	SBL
SBR	1422	-	-	57	58	98**	1.0	56.4	E-	-	23	21	48	--3---	1422	SBR
WBT	1430	3600	35	523	796	66	1.0	28.0	D+	10	40	38	8	-2----	1430	WBT
* WBL	1431	3200	35	163	160	102**	1.0	106.0	F	5	8	6	0	1-----	1431	WBL *
WBR	1432	-	-	226	344	66	1.0	28.0	D+	-	40	38	8	-2----	1432	WBR
* NBT	1440	7200	35	1641	1681	98**	1.0	37.1	D-	22	49	47	71	---4--	1440	NBT *
NBL	1441	-	-	705	722	98**	1.0	37.1	D-	-	49	47	71	---4--	1441	NBL
NBR	1442	-	-	407	417	98**	1.0	37.1	D-	-	49	47	71	---4--	1442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 5998 WEIGHTED AVERAGE DELAY = 43.8 DELAY LOS = E+ CYCLE = 120
* CRITICAL MOVEMENT SUMMARY : ICU = .98/E WEIGHTED AVERAGE DELAY = 45.7 DELAY LOS = E SYSTEM (BG) OFFSET = 116

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INTERSECTION # 15 - I-10 W/B @ RANCHO AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* SBT	1520	5400	35	1202	1531	78	1.0	21.9	C	10	33	31	57	--3---	1520	SBT *
SBR	1522	-	-	258	329	78	1.0	21.9	C	-	33	31	57	--3---	1522	SBR
WBL	1531	709	35	170	323	53	1.0	14.7	B	3	43	41	0	1-----	1531	WBL
* WBR	1532	2791	35	993	1271	78	1.0	18.2	C	10	43	41	0	1-----	1532	WBR *
NBT	1540	5400	35	1869	2700	69	1.0	13.7	B	11	47	45	43	-23---	1540	NBT
* NBL	1541	1700	35	184	227	81	1.0	42.6	E+	4	14	12	43	-2----	1541	NBL *

INTERSECTION SUMMARY : TOTAL FLOW = 4676 WEIGHTED AVERAGE DELAY = 18.4 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .79/C WEIGHTED AVERAGE DELAY = 21.9 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 16 - I-10 E/B @ RANCHO AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	1611	2158	35	616	671	92**	1.0	36.0	D-	7	30	28	0	1-----	1611	EBL *
EBR	1612	1342	35	362	418	87	1.0	34.9	D	8	30	28	0	1-----	1612	EBR
SBT	1620	5400	35	1038	3480	30	1.0	5.4	B	3	60	58	30	-23---	1620	SBT
* SBL	1621	1700	35	460	510	90	1.0	37.3	D-	11	29	27	30	-2----	1621	SBL *
* NBT	1640	5400	35	1414	1546	91**	1.0	28.4	D+	12	31	29	59	--3---	1640	NBT *
NBR	1642	-	-	177	194	91**	1.0	28.4	D+	-	31	29	59	--3---	1642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4067 WEIGHTED AVERAGE DELAY = 25.3 DELAY LOS = D+ CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .91/E WEIGHTED AVERAGE DELAY = 31.7 DELAY LOS = D SYSTEM (BG) OFFSET = 86

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INTERSECTION # 17 - MILL STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
EBT	1710	3600	35	798	1630	49	1.0	11.1	B	7	48	46	19	-2----	1710	EBT
EBL	1711	1700	35	23	321	7	1.0	22.8	C	0	19	17	0	1-----	1711	EBL
EBR	1712	-	-	103	210	49	1.0	11.1	B	-	48	46	19	-2----	1712	EBR
SBT	1720	1800	35	24	120	20	1.0	21.1	C	2	23	21	67	--3---	1720	SBT
SBL	1721	-	-	26	130	20	1.0	21.1	C	-	23	21	67	--3---	1721	SBL
SBR	1722	-	-	34	170	20	1.0	21.1	C	-	23	21	67	--3---	1722	SBR
* WBT	1730	3600	35	1197	1781	67	1.0	13.2	B	11	48	46	19	-2----	1730	WBT *
* WBL	1731	1700	35	210	321	65	1.0	29.1	D+	5	19	17	0	1-----	1731	WBL *
WBR	1732	-	-	40	59	67	1.0	13.2	B	-	48	46	19	-2----	1732	WBR
NBT	1740	1800	35	32	71	45	1.0	23.0	C	4	23	21	67	--3---	1740	NBT
* NBL	1741	1200	35	186	280	66	1.0	28.0	D+	4	23	21	67	--3---	1741	NBL *
NBR	1742	-	-	156	349	45	1.0	23.0	C	-	23	21	67	--3---	1742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2829 WEIGHTED AVERAGE DELAY = 15.7 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .67/B WEIGHTED AVERAGE DELAY = 16.9 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 18 - JOHNSTON STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
* EBT	1810	1800	35	22	73	30	1.0	21.2	C	3	24	22	0	1-----	1810	EBT *
EBL	1811	-	-	62	207	30	1.0	21.2	C	-	24	22	0	1-----	1811	EBL
EBR	1812	-	-	48	160	30	1.0	21.2	C	-	24	22	0	1-----	1812	EBR
SBT	1820	1800	35	190	811	23	1.0	3.5	A	2	66	64	24	-2----	1820	SBT
SBL	1821	-	-	32	137	23	1.0	3.5	A	-	66	64	24	-2----	1821	SBL
SBR	1822	-	-	78	333	23	1.0	3.5	A	-	66	64	24	-2----	1822	SBR
WBT	1830	1800	35	24	160	15	1.0	20.3	C	1	24	22	0	1-----	1830	WBT
WBL	1831	-	-	10	67	15	1.0	20.3	C	-	24	22	0	1-----	1831	WBL
WBR	1832	-	-	32	213	15	1.0	20.3	C	-	24	22	0	1-----	1832	WBR
* NBT	1840	1800	35	328	1096	30	1.0	3.7	A	3	66	64	24	-2----	1840	NBT *
NBL	1841	-	-	45	150	30	1.0	3.7	A	-	66	64	24	-2----	1841	NBL
NBR	1842	-	-	10	33	30	1.0	3.7	A	-	66	64	24	-2----	1842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 881 WEIGHTED AVERAGE DELAY = 7.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .30/A WEIGHTED AVERAGE DELAY = 8.2 DELAY LOS = B SYSTEM (BG) OFFSET = 86

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THE TRAFFIC GROWTH MONITORING PROGRAM
MONITOR

INTERSECTION # 19 - CITRUS STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	1910	1800	35	11	38	29	1.0	26.3	D+	2	15	13	0	1-----	1910	EBT *
EBL	1911	-	-	10	35	29	1.0	26.3	D+	-	15	13	0	1-----	1911	EBL
EBR	1912	-	-	54	187	29	1.0	26.3	D+	-	15	13	0	1-----	1912	EBR
SBT	1920	1800	35	216	1287	17	1.0	1.4	A	1	75	73	15	-2----	1920	SBT
SBL	1921	-	-	10	60	17	1.0	1.4	A	-	75	73	15	-2----	1921	SBL
SBR	1922	-	-	19	113	17	1.0	1.4	A	-	75	73	15	-2----	1922	SBR
WBT	1930	1800	35	34	130	26	1.0	26.2	D+	2	15	13	0	1-----	1930	WBT
WBL	1931	-	-	17	65	26	1.0	26.2	D+	-	15	13	0	1-----	1931	WBL
WBR	1932	-	-	17	65	26	1.0	26.2	D+	-	15	13	0	1-----	1932	WBR
* NBT	1940	1800	35	342	1145	30	1.0	1.7	A	3	75	73	15	-2----	1940	NBT *
NBL	1941	-	-	84	281	30	1.0	1.7	A	-	75	73	15	-2----	1941	NBL
NBR	1942	-	-	10	33	30	1.0	1.7	A	-	75	73	15	-2----	1942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 824   WEIGHTED AVERAGE DELAY = 5.9   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .30/A   WEIGHTED AVERAGE DELAY = 5.3   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 20 - LAUREL STREET @ PENNSYLVANIA AV   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	2010	1800	35	68	392	17	1.0	16.2	C	2	32	30	0	1-----	2010	EBT
EBL	2011	-	-	19	110	17	1.0	16.2	C	-	32	30	0	1-----	2011	EBL
EBR	2012	-	-	17	98	17	1.0	16.2	C	-	32	30	0	1-----	2012	EBR
SBT	2020	1800	35	199	805	25	1.0	5.8	B	3	58	56	32	-2----	2020	SBT
SBL	2021	-	-	52	210	25	1.0	5.8	B	-	58	56	32	-2----	2021	SBL
SBR	2022	-	-	26	105	25	1.0	5.8	B	-	58	56	32	-2----	2022	SBR
* WBT	2030	1800	35	98	283	35	1.0	17.4	C	4	32	30	0	1-----	2030	WBT *
WBL	2031	-	-	32	92	35	1.0	17.4	C	-	32	30	0	1-----	2031	WBL
WBR	2032	-	-	78	225	35	1.0	17.4	C	-	32	30	0	1-----	2032	WBR
* NBT	2040	1800	35	355	1007	35	1.0	6.4	B	5	58	56	32	-2----	2040	NBT *
NBL	2041	-	-	20	57	35	1.0	6.4	B	-	58	56	32	-2----	2041	NBL
NBR	2042	-	-	20	57	35	1.0	6.4	B	-	58	56	32	-2----	2042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 984   WEIGHTED AVERAGE DELAY = 9.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .35/A   WEIGHTED AVERAGE DELAY = 10.2   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 21 - OLIVE STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2110	1800	35	131	296	44	1.0	13.9	B	6	41	39	0	1-----	2110	EBT *
EBL	2111	-	-	187	423	44	1.0	13.9	B	-	41	39	0	1-----	2111	EBL
EBR	2112	-	-	27	61	44	1.0	13.9	B	-	41	39	0	1-----	2112	EBR
SBT	2120	1800	35	194	769	25	1.0	9.1	B	3	49	47	41	-2----	2120	SBT
SBL	2121	-	-	20	79	25	1.0	9.1	B	-	49	47	41	-2----	2121	SBL
SBR	2122	-	-	23	91	25	1.0	9.1	B	-	49	47	41	-2----	2122	SBR
WBT	2130	1800	35	153	631	24	1.0	12.3	B	3	41	39	0	1-----	2130	WBT
WBL	2131	-	-	10	41	24	1.0	12.3	B	-	41	39	0	1-----	2131	WBL
WBR	2132	-	-	26	107	24	1.0	12.3	B	-	41	39	0	1-----	2132	WBR
* NBT	2140	1800	35	361	820	44	1.0	10.4	B	6	49	47	41	-2----	2140	NBT *
NBL	2141	-	-	43	98	44	1.0	10.4	B	-	49	47	41	-2----	2141	NBL
NBR	2142	-	-	10	23	44	1.0	10.4	B	-	49	47	41	-2----	2142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1185 WEIGHTED AVERAGE DELAY = 11.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .44/A WEIGHTED AVERAGE DELAY = 12.0 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 22 - "C" STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	2210	1800	35	194	681	28	1.0	10.9	B	4	45	43	0	1-----	2210	EBT
EBL	2211	-	-	27	95	28	1.0	10.9	B	-	45	43	0	1-----	2211	EBL
EBR	2212	-	-	24	84	28	1.0	10.9	B	-	45	43	0	1-----	2212	EBR
SBT	2220	1800	35	96	362	27	1.0	10.8	B	3	45	43	45	-2----	2220	SBT
SBL	2221	-	-	114	430	27	1.0	10.8	B	-	45	43	45	-2----	2221	SBL
SBR	2222	-	-	18	68	27	1.0	10.8	B	-	45	43	45	-2----	2222	SBR
* WBT	2230	1800	35	335	766	44	1.0	12.1	B	6	45	43	0	1-----	2230	WBT *
WBL	2231	-	-	41	94	44	1.0	12.1	B	-	45	43	0	1-----	2231	WBL
WBR	2232	1800	35	158	860	18	1.0	10.3	B	2	45	43	0	1-----	2232	WBR
* NBT	2240	1800	35	206	471	44	1.0	12.1	B	6	45	43	45	-2----	2240	NBT *
NBL	2241	-	-	42	96	44	1.0	12.1	B	-	45	43	45	-2----	2241	NBL
NBR	2242	-	-	128	293	44	1.0	12.1	B	-	45	43	45	-2----	2242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1383 WEIGHTED AVERAGE DELAY = 11.4 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .44/A WEIGHTED AVERAGE DELAY = 12.1 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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INTERSECTION # 23 - "E" STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	2310	1800	35	223	763	29	1.0	7.8	B	4	53	51	0	1-----	2310	EBT
EBL	2311	-	-	33	113	29	1.0	7.8	B	-	53	51	0	1-----	2311	EBL
EBR	2312	-	-	42	144	29	1.0	7.8	B	-	53	51	0	1-----	2312	EBR
SBT	2320	1800	35	114	324	35	1.0	15.0	B	4	37	35	53	-2----	2320	SBT
SBL	2321	-	-	110	313	35	1.0	15.0	B	-	37	35	53	-2----	2321	SBL
SBR	2322	-	-	22	63	35	1.0	15.0	B	-	37	35	53	-2----	2322	SBR
* WBT	2330	1800	35	359	635	57	1.0	10.1	B	9	53	51	0	1-----	2330	WBT *
WBL	2331	-	-	48	85	57	1.0	10.1	B	-	53	51	0	1-----	2331	WBL
WBR	2332	-	-	170	301	57	1.0	10.1	B	-	53	51	0	1-----	2332	WBR
* NBT	2340	1800	35	241	421	57	1.0	17.4	C	8	37	35	53	-2----	2340	NBT *
NBL	2341	-	-	47	82	57	1.0	17.4	C	-	37	35	53	-2----	2341	NBL
NBR	2342	-	-	113	197	57	1.0	17.4	C	-	37	35	53	-2----	2342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1522 WEIGHTED AVERAGE DELAY = 12.3 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .57/A WEIGHTED AVERAGE DELAY = 13.1 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 24 - "H" STREET @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	2410	1800	35	58	699	8	1.0	8.2	B	1	49	47	0	1-----	2410	EBT
EBL	2411	-	-	10	121	8	1.0	8.2	B	-	49	47	0	1-----	2411	EBL
EBR	2412	-	-	10	121	8	1.0	8.2	B	-	49	47	0	1-----	2412	EBR
SBT	2420	1800	35	84	236	36	1.0	13.2	B	5	41	39	49	-2----	2420	SBT
SBL	2421	-	-	184	516	36	1.0	13.2	B	-	41	39	49	-2----	2421	SBL
SBR	2422	-	-	10	28	36	1.0	13.2	B	-	41	39	49	-2----	2422	SBR
* WBT	2430	1800	35	94	197	48	1.0	10.8	B	7	49	47	0	1-----	2430	WBT *
WBL	2431	-	-	68	142	48	1.0	10.8	B	-	49	47	0	1-----	2431	WBL
WBR	2432	-	-	287	601	48	1.0	10.8	B	-	49	47	0	1-----	2432	WBR
* NBT	2440	1800	35	169	349	48	1.0	14.3	B	7	41	39	49	-2----	2440	NBT *
NBL	2441	-	-	12	25	48	1.0	14.3	B	-	41	39	49	-2----	2441	NBL
NBR	2442	-	-	197	407	48	1.0	14.3	B	-	41	39	49	-2----	2442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1183 WEIGHTED AVERAGE DELAY = 12.3 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .48/A WEIGHTED AVERAGE DELAY = 12.4 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 25 - VALLEY BLVD @ PENNSYLVANIA AV C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	2510	3600	35	823	1658	50	1.0	12.9	B	7	44	42	29	-2----	2510	EBT
* EBL	2511	1700	35	266	510	52	1.0	20.7	C	5	29	27	0	1-----	2511	EBL *
EBR	2512	-	-	11	22	50	1.0	12.9	B	-	44	42	29	-2----	2512	EBR
* SBT	2520	1800	35	10	19	54	1.0	27.7	D+	4	17	15	73	--3---	2520	SBT *
SBL	2521	-	-	37	69	54	1.0	27.7	D+	-	17	15	73	--3---	2521	SBL
SBR	2522	-	-	114	212	54	1.0	27.7	D+	-	17	15	73	--3---	2522	SBR
* WBT	2530	3600	35	785	1495	53	1.0	13.2	B	7	44	42	29	-2----	2530	WBT *
WBL	2531	1700	35	90	510	18	1.0	17.7	C	2	29	27	0	1-----	2531	WBL
WBR	2532	-	-	97	185	53	1.0	13.2	B	-	44	42	29	-2----	2532	WBR
NBT	2540	1800	35	10	38	27	1.0	25.0	D+	2	17	15	73	--3---	2540	NBT
NBL	2541	-	-	13	49	27	1.0	25.0	D+	-	17	15	73	--3---	2541	NBL
NBR	2542	-	-	57	214	27	1.0	25.0	D+	-	17	15	73	--3---	2542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2313 WEIGHTED AVERAGE DELAY = 15.5 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .53/A WEIGHTED AVERAGE DELAY = 16.5 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 26 - LAUREL STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2610	1800	35	78	288	27	1.0	17.3	C	3	31	29	0	1-----	2610	EBT *
EBL	2611	-	-	69	255	27	1.0	17.3	C	-	31	29	0	1-----	2611	EBL
EBR	2612	-	-	10	37	27	1.0	17.3	C	-	31	29	0	1-----	2612	EBR
* SBT	2620	3600	35	591	2146	28	1.0	5.6	B	3	59	57	31	-2----	2620	SBT *
SBL	2621	1400	35	10	887	1	1.0	4.6	A	0	59	57	31	-2----	2621	SBL
SBR	2622	-	-	37	134	28	1.0	5.6	B	-	59	57	31	-2----	2622	SBR
WBT	2630	1800	35	66	372	18	1.0	16.7	C	2	31	29	0	1-----	2630	WBT
WBL	2631	-	-	18	101	18	1.0	16.7	C	-	31	29	0	1-----	2631	WBL
WBR	2632	-	-	19	107	18	1.0	16.7	C	-	31	29	0	1-----	2632	WBR
NBT	2640	3600	35	587	2155	27	1.0	5.6	B	3	59	57	31	-2----	2640	NBT
NBL	2641	1300	35	39	823	5	1.0	4.8	A	0	59	57	31	-2----	2641	NBL
NBR	2642	-	-	34	125	27	1.0	5.6	B	-	59	57	31	-2----	2642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1558 WEIGHTED AVERAGE DELAY = 7.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .27/A WEIGHTED AVERAGE DELAY = 8.0 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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INTERSECTION # 27 - OLIVE STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/28/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
* EBT	2710	1800	35	73	200	37	1.0	18.0	C	4	31	29	0	1-----	2710	EBT *
EBL	2711	-	-	104	285	37	1.0	18.0	C	-	31	29	0	1-----	2711	EBL
EBR	2712	-	-	35	96	37	1.0	18.0	C	-	31	29	0	1-----	2712	EBR
* SBT	2720	3600	35	701	1933	36	1.0	6.0	B	5	59	57	31	-2----	2720	SBT *
SBL	2721	1400	35	10	887	1	1.0	4.6	A	0	59	57	31	-2----	2721	SBL
SBR	2722	-	-	126	347	36	1.0	6.0	B	-	59	57	31	-2----	2722	SBR
WBT	2730	1800	35	69	400	17	1.0	16.7	C	2	31	29	0	1-----	2730	WBT
WBL	2731	-	-	21	122	17	1.0	16.7	C	-	31	29	0	1-----	2731	WBL
WBR	2732	-	-	10	58	17	1.0	16.7	C	-	31	29	0	1-----	2732	WBR
NBT	2740	3600	35	769	2189	35	1.0	6.0	B	4	59	57	31	-2----	2740	NBT
NBL	2741	1400	35	15	887	2	1.0	4.7	A	0	59	57	31	-2----	2741	NBL
NBR	2742	-	-	32	91	35	1.0	6.0	B	-	59	57	31	-2----	2742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1965   WEIGHTED AVERAGE DELAY = 7.8   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .36/A   WEIGHTED AVERAGE DELAY = 8.5   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 28 - "C" STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/28/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
* EBT	2810	1800	35	172	331	52	1.0	13.4	B	7	44	42	0	1-----	2810	EBT *
EBL	2811	-	-	171	329	52	1.0	13.4	B	-	44	42	0	1-----	2811	EBL
EBR	2812	-	-	93	179	52	1.0	13.4	B	-	44	42	0	1-----	2812	EBR
SBT	2820	3600	35	721	1667	43	1.0	11.5	B	6	46	44	44	-2----	2820	SBT
SBL	2821	1300	35	46	636	7	1.0	9.3	B	1	46	44	44	-2----	2821	SBL
SBR	2822	-	-	40	93	43	1.0	11.5	B	-	46	44	44	-2----	2822	SBR
WBT	2830	1800	35	79	405	20	1.0	10.7	B	2	44	42	0	1-----	2830	WBT
WBL	2831	-	-	56	287	20	1.0	10.7	B	-	44	42	0	1-----	2831	WBL
WBR	2832	-	-	29	149	20	1.0	10.7	B	-	44	42	0	1-----	2832	WBR
* NBT	2840	3600	35	881	1695	52	1.0	12.3	B	8	46	44	44	-2----	2840	NBT *
NBL	2841	1300	35	78	636	12	1.0	9.5	B	1	46	44	44	-2----	2841	NBL
NBR	2842	-	-	34	65	52	1.0	12.3	B	-	46	44	44	-2----	2842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2400   WEIGHTED AVERAGE DELAY = 12.0   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .52/A   WEIGHTED AVERAGE DELAY = 12.6   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
AS PART OF
THE TRAFFIC GROWTH MONITORING PROGRAM
MONITOR

INTERSECTION # 29 - "E" STREET @ LA CADENA STREE C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	2910	1800	35	25	71	35	1.0	25.0	C	2	18	16	0	1-----	2910	EBT *
EBL	2911	-	-	35	100	35	1.0	25.0	C	-	18	16	0	1-----	2911	EBL
EBR	2912	-	-	52	149	35	1.0	25.0	C	-	18	16	0	1-----	2912	EBR
SBT	2920	3600	35	798	2598	31	1.0	2.3	A	3	72	70	18	-2----	2920	SBT
SBL	2921	1400	35	17	1089	2	1.0	1.7	A	0	72	70	18	-2----	2921	SBL
SBR	2922	-	-	62	202	31	1.0	2.3	A	-	72	70	18	-2----	2922	SBR
WBT	2930	1800	35	31	134	23	1.0	24.2	C	2	18	16	0	1-----	2930	WBT
WBL	2931	-	-	16	69	23	1.0	24.2	C	-	18	16	0	1-----	2931	WBL
WBR	2932	-	-	27	117	23	1.0	24.2	C	-	18	16	0	1-----	2932	WBR
* NBT	2940	3600	35	981	2730	36	1.0	2.4	A	4	72	70	18	-2----	2940	NBT *
NBL	2941	1300	35	50	1011	5	1.0	1.8	A	0	72	70	18	-2----	2941	NBL
NBR	2942	-	-	25	70	36	1.0	2.4	A	-	72	70	18	-2----	2942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2119 WEIGHTED AVERAGE DELAY = 4.3 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .36/A WEIGHTED AVERAGE DELAY = 4.7 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 30 - "G" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/28/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	3010	1800	35	29	89	33	1.0	26.6	D+	2	15	13	0	1-----	3010	EBT
EBL	3011	-	-	13	40	33	1.0	26.6	D+	-	15	13	0	1-----	3011	EBL
EBR	3012	-	-	43	132	33	1.0	26.6	D+	-	15	13	0	1-----	3012	EBR
SBT	3020	3600	35	853	2837	30	1.0	1.6	A	2	75	73	15	-2----	3020	SBT
SBL	3021	1400	35	10	1136	1	1.0	1.2	A	0	75	73	15	-2----	3021	SBL
SBR	3022	-	-	25	83	30	1.0	1.6	A	-	75	73	15	-2----	3022	SBR
* WBT	3030	1800	35	43	129	33	1.0	26.6	D+	2	15	13	0	1-----	3030	WBT *
WBL	3031	-	-	31	93	33	1.0	26.6	D+	-	15	13	0	1-----	3031	WBL
WBR	3032	-	-	13	39	33	1.0	26.6	D+	-	15	13	0	1-----	3032	WBR
* NBT	3040	3600	35	977	2813	35	1.0	1.7	A	3	75	73	15	-2----	3040	NBT *
NBL	3041	1400	35	37	1136	3	1.0	1.3	A	0	75	73	15	-2----	3041	NBL
NBR	3042	-	-	37	107	35	1.0	1.7	A	-	75	73	15	-2----	3042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2111 WEIGHTED AVERAGE DELAY = 3.7 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .35/A WEIGHTED AVERAGE DELAY = 3.7 DELAY LOS = A SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 31 - "H" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
* EBT	3110	1800	35	293	452	65	1.0	13.5	B	11	48	46	0	1-----	3110	EBT *
EBL	3111	-	-	158	243	65	1.0	13.5	B	-	48	46	0	1-----	3111	EBL
EBR	3112	-	-	146	225	65	1.0	13.5	B	-	48	46	0	1-----	3112	EBR
SBT	3120	3600	35	755	1410	54	1.0	14.2	B	7	42	40	48	-2----	3120	SBT
SBL	3121	1300	35	87	578	15	1.0	11.4	B	1	42	40	48	-2----	3121	SBL
SBR	3122	-	-	102	190	54	1.0	14.2	B	-	42	40	48	-2----	3122	SBR
WBT	3130	1800	35	259	487	53	1.0	11.8	B	8	48	46	0	1-----	3130	WBT
WBL	3131	-	-	143	269	53	1.0	11.8	B	-	48	46	0	1-----	3131	WBL
WBR	3132	-	-	87	164	53	1.0	11.8	B	-	48	46	0	1-----	3132	WBR
* NBT	3140	3600	35	860	1339	64	1.0	15.5	C	10	42	40	48	-2----	3140	NBT *
NBL	3141	1100	35	252	489	52	1.0	14.6	B	5	42	40	48	-2----	3141	NBL
NBR	3142	-	-	168	261	64	1.0	15.5	C	-	42	40	48	-2----	3142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3310 WEIGHTED AVERAGE DELAY = 14.1 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .65/B WEIGHTED AVERAGE DELAY = 14.7 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 32 - VALLEY BLVD @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
EBT	3210	3600	35	735	833	88	1.0	30.7	D	10	27	25	13	-2----	3210	EBT
EBL	3211	1700	35	182	208	88	1.0	52.1	E	4	13	11	0	1-----	3211	EBL
EBR	3212	-	-	147	167	88	1.0	30.7	D	-	27	25	13	-2----	3212	EBR
SBT	3220	3600	35	750	1171	64	1.0	17.3	C	9	38	36	52	---4--	3220	SBT
SBL	3221	1700	35	126	189	67	1.0	35.3	D-	3	12	10	40	--3---	3221	SBL
SBR	3222	-	-	172	269	64	1.0	17.3	C	-	38	36	52	---4--	3222	SBR
* WBT	3230	3600	35	771	853	90	1.0	32.5	D	10	27	25	13	-2----	3230	WBT *
* WBL	3231	3200	35	344	391	88	1.0	44.1	E+	4	13	11	0	1-----	3231	WBL *
WBR	3232	-	-	133	147	90	1.0	32.5	D	-	27	25	13	-2----	3232	WBR
* NBT	3240	3600	35	914	1002	91**	1.0	26.5	D+	15	38	36	52	---4--	3240	NBT *
* NBL	3241	1700	35	173	189	92**	1.0	61.2	F	4	12	10	40	--3---	3241	NBL *
NBR	3242	-	-	400	438	91**	1.0	26.5	D+	-	38	36	0	1--4--	3242	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4847 WEIGHTED AVERAGE DELAY = 30.3 DELAY LOS = D CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .91/E WEIGHTED AVERAGE DELAY = 32.9 DELAY LOS = D SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 33 - I-10 W/B @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* SBT	3320	3600	35	904	1832	49	1.0	8.0	B	7	56	54	34	--3---	3320	SBT *
SBR	3322	-	-	162	328	49	1.0	8.0	B	-	56	54	34	--3---	3322	SBR
* WBT	3330	1800	35	10	19	51	1.0	30.6	D	2	12	10	0	1-----	3330	WBT *
WBL	3331	-	-	82	159	51	1.0	30.6	D	-	12	10	0	1-----	3331	WBL
WBR	3332	-	-	11	21	51	1.0	30.6	D	-	12	10	0	1-----	3332	WBR
NBT	3340	3600	35	1206	3040	40	1.0	1.3	A	3	78	76	12	-23---	3340	NBT
* NBL	3341	1700	35	186	378	49	1.0	24.1	C	4	22	20	12	-2----	3341	NBL *

INTERSECTION SUMMARY : TOTAL FLOW = 2561 WEIGHTED AVERAGE DELAY = 6.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .50/A WEIGHTED AVERAGE DELAY = 11.9 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 34 - "M" STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	3410	1800	35	10	34	29	1.0	30.8	D	1	8	6	0	1-----	3410	EBT
EBL	3411	-	-	15	51	29	1.0	30.8	D	-	8	6	0	1-----	3411	EBL
EBR	3412	-	-	10	34	29	1.0	30.8	D	-	8	6	0	1-----	3412	EBR
SBT	3420	3600	35	935	3110	30	1.0	.6	A	2	82	80	8	-2----	3420	SBT
SBL	3421	1400	35	20	1244	2	1.0	.4	A	0	82	80	8	-2----	3421	SBL
SBR	3422	-	-	27	90	30	1.0	.6	A	-	82	80	8	-2----	3422	SBR
* WBT	3430	1800	35	10	21	48	1.0	33.3	D	1	8	6	0	1-----	3430	WBT *
WBL	3431	-	-	21	43	48	1.0	33.3	D	-	8	6	0	1-----	3431	WBL
WBR	3432	-	-	27	56	48	1.0	33.3	D	-	8	6	0	1-----	3432	WBR
* NBT	3440	3600	35	1454	3142	46	1.0	.8	A	3	82	80	8	-2----	3440	NBT *
NBL	3441	1400	35	10	1244	1	1.0	.4	A	0	82	80	8	-2----	3441	NBL
NBR	3442	-	-	27	58	46	1.0	.8	A	-	82	80	8	-2----	3442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2566 WEIGHTED AVERAGE DELAY = 1.9 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .46/A WEIGHTED AVERAGE DELAY = 2.0 DELAY LOS = A SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 35 - "N" STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	3510	1800	35	36	67	53	1.0	23.0	C	5	25	23	0	1-----	3510	EBT *
EBL	3511	-	-	148	277	53	1.0	23.0	C	-	25	23	0	1-----	3511	EBL
EBR	3512	-	-	62	116	53	1.0	23.0	C	-	25	23	0	1-----	3512	EBR
SBT	3520	3600	35	877	2251	39	1.0	4.3	A	5	65	63	25	-2----	3520	SBT
SBL	3521	1400	35	16	980	2	1.0	3.1	A	0	65	63	25	-2----	3521	SBL
SBR	3522	-	-	105	269	39	1.0	4.3	A	-	65	63	25	-2----	3522	SBR
WBT	3530	1800	35	10	121	8	1.0	19.4	C	1	25	23	0	1-----	3530	WBT
WBL	3531	-	-	10	121	8	1.0	19.4	C	-	25	23	0	1-----	3531	WBL
WBR	3532	-	-	18	218	8	1.0	19.4	C	-	25	23	0	1-----	3532	WBR
* NBT	3540	3600	35	1322	2479	53	1.0	5.1	B	8	65	63	25	-2----	3540	NBT *
NBL	3541	1400	35	33	980	3	1.0	3.2	A	0	65	63	25	-2----	3541	NBL
NBR	3542	-	-	22	41	53	1.0	5.1	B	-	65	63	25	-2----	3542	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 2659   WEIGHTED AVERAGE DELAY = 6.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .53/A   WEIGHTED AVERAGE DELAY = 7.9   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 36 - 7TH STREET @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	3610	1800	35	25	250	10	1.0	17.3	C	1	29	27	0	1-----	3610	EBT
EBL	3611	-	-	10	100	10	1.0	17.3	C	-	29	27	0	1-----	3611	EBL
EBR	3612	-	-	19	190	10	1.0	17.3	C	-	29	27	0	1-----	3612	EBR
SBT	3620	3600	35	693	2326	30	1.0	5.1	B	3	61	59	29	-2----	3620	SBT
SBL	3621	1400	35	19	918	2	1.0	4.1	A	0	61	59	29	-2----	3621	SBL
SBR	3622	-	-	10	34	30	1.0	5.1	B	-	61	59	29	-2----	3622	SBR
* WBT	3630	1800	35	33	71	46	1.0	20.0	C	5	29	27	0	1-----	3630	WBT *
WBL	3631	-	-	10	22	46	1.0	20.0	C	-	29	27	0	1-----	3631	WBL
WBR	3632	-	-	207	447	46	1.0	20.0	C	-	29	27	0	1-----	3632	WBR
* NBT	3640	3600	35	1053	2303	46	1.0	5.9	B	6	61	59	29	-2----	3640	NBT *
NBL	3641	-	-	26	57	46	1.0	5.9	B	-	61	59	29	-2----	3641	NBL
NBR	3642	1400	35	25	918	3	1.0	4.1	A	0	61	59	29	-2----	3642	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 2130   WEIGHTED AVERAGE DELAY = 7.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .46/A   WEIGHTED AVERAGE DELAY = 8.6   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

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TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
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MONITOR

INTERSECTION # 37 - FOGG STREET @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	3710	1800	35	117	212	55	1.0	14.7	B	8	42	40	0	1-----	3710	EBT *
EBL	3711	-	-	183	331	55	1.0	14.7	B	-	42	40	0	1-----	3711	EBL
EBR	3712	-	-	142	257	55	1.0	14.7	B	-	42	40	0	1-----	3712	EBR
SBT	3720	3600	35	513	1409	36	1.0	10.1	B	5	48	46	42	-2----	3720	SBT
SBL	3721	1700	35	12	869	1	1.0	8.3	B	0	48	46	42	-2----	3721	SBL
SBR	3722	-	-	157	431	36	1.0	10.1	B	-	48	46	42	-2----	3722	SBR
WBT	3730	1800	35	52	274	19	1.0	11.6	B	2	42	40	0	1-----	3730	WBT
WBL	3731	-	-	73	384	19	1.0	11.6	B	-	42	40	0	1-----	3731	WBL
WBR	3732	-	-	27	142	19	1.0	11.6	B	-	42	40	0	1-----	3732	WBR
* NBT	3740	3600	35	794	1467	54	1.0	11.6	B	8	48	46	42	-2----	3740	NBT *
NBL	3741	1700	35	177	869	20	1.0	9.2	B	2	48	46	42	-2----	3741	NBL
NBR	3742	-	-	202	373	54	1.0	11.6	B	-	48	46	42	-2----	3742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2449 WEIGHTED AVERAGE DELAY = 11.6 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .55/A WEIGHTED AVERAGE DELAY = 12.6 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 38 - FOGG STREET @ RANCHO AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	3810	1800	35	271	563	48	1.0	16.2	C	6	37	35	0	1-----	3810	EBT *
EBL	3811	1300	35	64	506	13	1.0	13.5	B	1	37	35	0	1-----	3811	EBL
EBR	3812	-	-	66	137	48	1.0	16.2	C	-	37	35	0	1-----	3812	EBR
* SBT	3820	3600	35	859	1810	47	1.0	9.0	B	7	53	51	37	-2----	3820	SBT *
SBL	3821	1400	35	10	793	1	1.0	6.5	B	0	53	51	37	-2----	3821	SBL
SBR	3822	-	-	109	230	47	1.0	9.0	B	-	53	51	37	-2----	3822	SBR
WBT	3830	1800	35	187	664	28	1.0	14.4	B	3	37	35	0	1-----	3830	WBT
WBL	3831	1400	35	10	544	2	1.0	12.9	B	0	37	35	0	1-----	3831	WBL
WBR	3832	-	-	10	36	28	1.0	14.4	B	-	37	35	0	1-----	3832	WBR
NBT	3840	3600	35	851	2016	42	1.0	8.6	B	6	53	51	37	-2----	3840	NBT
NBL	3841	1400	35	29	793	4	1.0	6.6	B	0	53	51	37	-2----	3841	NBL
NBR	3842	-	-	10	24	42	1.0	8.6	B	-	53	51	37	-2----	3842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2476 WEIGHTED AVERAGE DELAY = 10.3 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .48/A WEIGHTED AVERAGE DELAY = 10.8 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 39 - RANCHO AVENUE @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	3911	168	35	55	63	87	1.0	66.9	F	1	36	34	54	--3---	3911	EBL *
EBR	3912	3432	35	903	1297	70	1.0	19.2	C	9	36	34	54	--3---	3912	EBR
* SBT	3920	3600	35	710	813	87	1.0	32.8	D	8	23	21	31	-2----	3920	SBT *
SBR	3922	-	-	24	27	87	1.0	32.8	D	-	23	21	31	-2----	3922	SBR
NBT	3940	3600	35	1040	2080	50	1.0	8.8	B	7	54	52	0	12----	3940	NBT
* NBL	3941	3200	35	877	1031	85	1.0	26.8	D+	10	31	29	0	1-----	3941	NBL *

INTERSECTION SUMMARY : TOTAL FLOW = 3609   WEIGHTED AVERAGE DELAY = 21.6   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .86/D   WEIGHTED AVERAGE DELAY = 30.8   DELAY LOS = D   SYSTEM (BG) OFFSET = 86

INTERSECTION # 40 - WASHINGTON STRE @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	4010	3600	35	218	803	27	1.0	21.5	C	2	23	21	0	1-----	4010	EBT
EBL	4011	1700	35	218	397	55	1.0	24.4	C	5	23	21	0	1-----	4011	EBL
EBR	4012	-	-	10	37	27	1.0	21.5	C	-	23	21	0	1-----	4012	EBR
SBT	4020	3600	35	1215	1853	66	1.0	10.4	B	11	54	52	36	--3---	4020	SBT
* SBL	4021	3200	35	346	391	88	1.0	44.7	E+	4	13	11	23	-2----	4021	SBL *
SBR	4022	-	-	149	227	66	1.0	10.4	B	-	54	52	36	--3---	4022	SBR
WBT	4030	3600	35	162	218	74	1.0	27.0	D+	7	23	21	0	1-----	4030	WBT
* WBL	4031	1700	35	339	397	85	1.0	37.1	D-	8	23	21	0	1-----	4031	WBL *
WBR	4032	-	-	463	622	74	1.0	27.0	D+	-	23	21	0	1-----	4032	WBR
* NBT	4040	3600	35	1450	1734	84	1.0	14.2	B	18	54	52	36	--3---	4040	NBT *
NBL	4041	1700	35	10	208	5	1.0	26.5	D+	0	13	11	23	-2----	4041	NBL
NBR	4042	-	-	289	346	84	1.0	14.2	B	-	54	52	36	--3---	4042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4869   WEIGHTED AVERAGE DELAY = 19.4   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .85/D   WEIGHTED AVERAGE DELAY = 21.8   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 41 - BARTON ROAD @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	4110	3600	35	213	611	35	1.0	24.3	C	2	19	17	21	-2----	4110	EBT	
*	EBL	4111	1700	35	312	359	87	1.0	40.5	E+	7	21	19	0	1-----	4111	EBL	*
	EBR	4112	-	-	24	69	35	1.0	24.3	C	-	19	17	21	-2----	4112	EBR	
	SBT	4120	3600	35	871	1347	65	1.0	14.2	B	10	45	43	45	---45-	4120	SBT	
*	SBL	4121	3200	35	338	427	79	1.0	35.8	D-	4	14	12	40	--34--	4121	SBL	*
	SBR	4122	-	-	241	373	65	1.0	14.2	B	-	45	43	45	---45-	4122	SBR	
*	WBT	4130	3600	35	215	243	88	1.0	36.8	D-	7	19	17	21	-2----	4130	WBT	*
	WBL	4131	1700	35	213	359	59	1.0	26.4	D+	5	21	19	0	1-----	4131	WBL	
	WBR	4132	-	-	386	437	88	1.0	36.8	D-	-	19	17	21	-234--	4132	WBR	
*	NBT	4140	3600	35	1076	1108	97**	1.0	35.2	D-	16	36	34	54	----5-	4140	NBT	*
	NBL	4141	1700	35	32	57	56	1.0	41.5	E+	1	5	3	40	--3---	4141	NBL	
	NBR	4142	-	-	245	252	97**	1.0	35.2	D-	-	36	34	54	----5-	4142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 4166 WEIGHTED AVERAGE DELAY = 29.2 DELAY LOS = D+ CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .90/E WEIGHTED AVERAGE DELAY = 36.3 DELAY LOS = D- SYSTEM (BG) OFFSET = 86

INTERSECTION # 42 - I-215 S/B @ LA CADENA DR C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBL	4211	2678	35	387	1279	30	1.0	11.0	B	3	45	43	0	1-----	4211	EBL	
*	EBR	4212	2572	35	1036	1229	84	1.0	19.8	C	11	45	43	0	1-----	4212	EBR	*
	SBT	4220	3600	35	736	1720	43	1.0	11.9	B	6	45	43	45	-2----	4220	SBT	
*	NBT	4240	3600	35	1424	1720	83	1.0	18.1	C	15	45	43	45	-2----	4240	NBT	*

INTERSECTION SUMMARY : TOTAL FLOW = 3583 WEIGHTED AVERAGE DELAY = 16.5 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .84/D WEIGHTED AVERAGE DELAY = 18.8 DELAY LOS = C SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
AS PART OF
THE TRAFFIC GROWTH MONITORING PROGRAM
MONITOR

INTERSECTION # 43 - I-215 N/B @ LA CADENA DR   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
SBT	4320	3600	35	1449	2840	51	1.0	2.7	A	6	73	71	0	12----	4320	SBT
* SBL	4321	1700	35	325	453	72	1.0	26.6	D+	7	26	24	0	1-----	4321	SBL *
* WBL	4331	187	35	22	31	71	1.0	60.4	F	1	17	15	73	--3---	4331	WBL *
WBR	4332	3313	35	353	552	64	1.0	28.4	D+	4	17	15	73	--3---	4332	WBR
* NBT	4340	3600	35	1135	1614	70	1.0	14.2	B	12	47	45	26	-2----	4340	NBT *
NBR	4342	-	-	131	186	70	1.0	14.2	B	-	47	45	26	-2----	4342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3415   WEIGHTED AVERAGE DELAY = 12.3   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .71/C   WEIGHTED AVERAGE DELAY = 17.3   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 44 - "H" STREET @ 9TH STREET   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	4410	1800	35	208	397	52	1.0	11.2	B	8	49	47	0	1-----	4410	EBT *
EBL	4411	-	-	156	298	52	1.0	11.2	B	-	49	47	0	1-----	4411	EBL
EBR	4412	-	-	128	245	52	1.0	11.2	B	-	49	47	0	1-----	4412	EBR
SBT	4420	1800	35	251	571	44	1.0	13.9	B	6	41	39	49	-2----	4420	SBT
SBL	4421	1400	35	12	607	2	1.0	11.1	B	0	41	39	49	-2----	4421	SBL
SBR	4422	-	-	92	209	44	1.0	13.9	B	-	41	39	49	-2----	4422	SBR
WBT	4430	1800	35	229	780	29	1.0	9.3	B	4	49	47	0	1-----	4430	WBT
WBL	4431	-	-	30	102	29	1.0	9.3	B	-	49	47	0	1-----	4431	WBL
WBR	4432	-	-	17	58	29	1.0	9.3	B	-	49	47	0	1-----	4432	WBR
* NBT	4440	1800	35	387	724	53	1.0	14.9	B	8	41	39	49	-2----	4440	NBT *
NBL	4441	1300	35	89	563	16	1.0	11.8	B	1	41	39	49	-2----	4441	NBL
NBR	4442	-	-	30	56	53	1.0	14.9	B	-	41	39	49	-2----	4442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 1629   WEIGHTED AVERAGE DELAY = 12.4   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .53/A   WEIGHTED AVERAGE DELAY = 12.9   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
AS PART OF
THE TRAFFIC GROWTH MONITORING PROGRAM
MONITOR

INTERSECTION # 45 - VALLEY BLVD @ 9TH STREET C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	4510	3600	35	786	889	88	1.0	23.8	C	15	39	37	5	-2----	4510	EBT *
EBL	4511	1700	35	46	57	81	1.0	71.2	F	1	5	3	0	1-----	4511	EBL
EBR	4512	-	-	523	591	88	1.0	23.8	C	-	39	37	5	-2----	4512	EBR
* SBT	4520	1800	35	254	277	92**	1.0	49.6	E	7	18	16	44	--3---	4520	SBT *
SBL	4521	1300	35	76	231	33	1.0	24.9	C	2	18	16	44	--3---	4521	SBL
SBR	4522	-	-	39	43	92**	1.0	49.6	E	-	18	16	44	--3---	4522	SBR
WBT	4530	3600	35	998	1282	78	1.0	19.5	C	12	39	37	5	-2----	4530	WBT
* WBL	4531	1700	35	56	57	99**	1.0	122.5	F	1	5	3	0	1-----	4531	WBL *
WBR	4532	-	-	154	198	78	1.0	19.5	C	-	39	37	5	-2----	4532	WBR
* NBT	4540	1800	35	333	375	89	1.0	35.9	D-	11	28	26	62	---4--	4540	NBT *
NBL	4541	1200	35	216	347	62	1.0	23.7	C	5	28	26	62	---4--	4541	NBL
NBR	4542	-	-	129	145	89	1.0	35.9	D-	-	28	26	62	---4--	4542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3610 WEIGHTED AVERAGE DELAY = 28.2 DELAY LOS = D+ CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .90/D WEIGHTED AVERAGE DELAY = 32.6 DELAY LOS = D SYSTEM (BG) OFFSET = 86

INTERSECTION # 46 - I-10 W/B @ 9TH STREET C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* SBT	4620	1800	35	854	1033	83	1.0	15.4	C	18	55	53	35	-2----	4620	SBT *
SBR	4622	-	-	22	27	83	1.0	15.4	C	-	55	53	35	-2----	4622	SBR
WBT	4630	1800	35	91	583	16	1.0	14.6	B	2	35	33	0	1-----	4630	WBT
WBL	4631	-	-	12	77	16	1.0	14.6	B	-	35	33	0	1-----	4631	WBL
* WBR	4632	1800	35	433	660	66	1.0	19.8	C	9	35	33	0	1-----	4632	WBR *
NBT	4640	1800	35	312	1060	29	1.0	7.1	B	4	55	53	35	-2----	4640	NBT
NBL	4641	1400	35	10	824	1	1.0	5.8	B	0	55	53	35	-2----	4641	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 1734 WEIGHTED AVERAGE DELAY = 14.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .76/C WEIGHTED AVERAGE DELAY = 16.9 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 47 - I-10 E/B @ 9TH STREET   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBL	4711	1648	35	314	439	71	1.0	26.7	D+	7	26	24	0	1-----	4711	EBL	
*	EBR	4712	52	35	10	14	72	1.0	85.3	F	0	26	24	0	1-----	4712	EBR	*
	SBT	4720	1800	35	10	1240	1	1.0	3.3	A	0	64	62	26	-2----	4720	SBT	
*	SBL	4721	1700	35	856	1171	73	1.0	8.4	B	13	64	62	26	-2----	4721	SBL	*
	NBT	4740	1800	35	10	620	2	1.0	3.4	A	0	64	62	26	-2----	4740	NBT	
	NBR	4742	-	-	10	620	2	1.0	3.4	A	-	64	62	26	-2----	4742	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 1210   WEIGHTED AVERAGE DELAY = 13.7   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .73/C   WEIGHTED AVERAGE DELAY = 9.3   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 48 - LA CADENA DR/GR @ MT VERNON AVE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	4810	3600	35	375	843	44	1.0	21.1	C	4	26	24	0	1-----	4810	EBT	
*	EBL	4811	3200	35	689	853	81	1.0	27.7	D+	8	26	24	0	1-----	4811	EBL	*
	EBR	4812	-	-	52	117	44	1.0	21.1	C	-	26	24	0	1-----	4812	EBR	
	SBT	4820	3600	35	713	1200	59	1.0	19.6	C	7	32	30	46	--34--	4820	SBT	
*	SBL	4821	1700	35	177	208	85	1.0	48.7	E	4	13	11	46	--3---	4821	SBL	*
*	SBR	4822	1800	35	502	600	84	1.0	28.5	D+	12	32	30	46	--34--	4822	SBR	*
*	WBT	4830	3600	35	448	553	81	1.0	31.2	D	7	20	18	26	-2----	4830	WBT	*
	WBL	4831	1700	35	108	340	32	1.0	23.6	C	2	20	18	26	-2----	4831	WBL	
	WBR	4832	-	-	135	167	81	1.0	31.2	D	-	20	18	26	-2----	4832	WBR	
	NBT	4840	3600	35	762	931	82	1.0	24.9	C	11	31	29	59	---45-	4840	NBT	
	NBL	4841	1700	35	24	189	13	1.0	27.4	D+	1	12	10	78	----5-	4841	NBL	
	NBR	4842	-	-	187	229	82	1.0	24.9	C	-	31	29	59	---45-	4842	NBR	

INTERSECTION SUMMARY :   TOTAL FLOW = 4172   WEIGHTED AVERAGE DELAY = 26.4   DELAY LOS = D+   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .82/D   WEIGHTED AVERAGE DELAY = 30.9   DELAY LOS = D   SYSTEM (BG) OFFSET = 86

INTERSECTION # 49 - LAUREL STREET @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBL	4911	1700	35	58	246	24	1.0	26.0	D+	1	15	13	0	1-----	4911	EBL
* EBR	4912	1800	35	79	260	30	1.0	26.4	D+	2	15	13	0	1-----	4912	EBR *
* SBT	4920	3600	35	792	2649	30	1.0	1.6	A	2	75	73	15	-2----	4920	SBT *
SBR	4922	-	-	81	271	30	1.0	1.6	A	-	75	73	15	-2----	4922	SBR
NBT	4940	3600	35	619	2920	21	1.0	1.5	A	1	75	73	15	-2----	4940	NBT
NBL	4941	1300	35	49	1054	5	1.0	1.3	A	0	75	73	15	-2----	4941	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 1678 WEIGHTED AVERAGE DELAY = 3.6 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .30/A WEIGHTED AVERAGE DELAY = 3.7 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 50 - OLIVE STREET @ MT VERNON AVE C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBL	5011	1800	35	37	160	23	1.0	29.2	D+	1	10	8	0	1-----	5011	EBL
* EBR	5012	1700	35	59	151	39	1.0	30.3	D	1	10	8	0	1-----	5012	EBR *
* SBT	5020	3600	35	1132	2980	38	1.0	1.0	A	2	80	78	10	-2----	5020	SBT *
SBR	5022	-	-	53	140	38	1.0	1.0	A	-	80	78	10	-2----	5022	SBR
NBT	5040	3600	35	741	3120	24	1.0	.8	A	1	80	78	10	-2----	5040	NBT
NBL	5041	1300	35	60	1127	5	1.0	.6	A	0	80	78	10	-2----	5041	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 2082 WEIGHTED AVERAGE DELAY = 2.2 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .38/A WEIGHTED AVERAGE DELAY = 2.3 DELAY LOS = A SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
AS PART OF
THE TRAFFIC GROWTH MONITORING PROGRAM
MONITOR

INTERSECTION # 51 - COLTON AVENUE @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	5110	1800	35	233	590	40	1.0	17.3	C	5	33	31	0	1-----	5110	EBT	
	EBL	5111	1300	35	114	448	25	1.0	16.2	C	2	33	31	0	1-----	5111	EBL	
	EBR	5112	-	-	12	30	40	1.0	17.3	C	-	33	31	0	1-----	5112	EBR	
	SBT	5120	3600	35	892	1998	45	1.0	7.2	B	6	57	55	33	-2----	5120	SBT	
	SBL	5121	1300	35	47	794	6	1.0	5.4	B	0	57	55	33	-2----	5121	SBL	
	SBR	5122	-	-	90	202	45	1.0	7.2	B	-	57	55	33	-2----	5122	SBR	
*	WBT	5130	1800	35	227	441	51	1.0	18.5	C	6	33	31	0	1-----	5130	WBT	*
	WBL	5131	1200	35	200	413	48	1.0	18.4	C	4	33	31	0	1-----	5131	WBL	
	WBR	5132	-	-	92	179	51	1.0	18.5	C	-	33	31	0	1-----	5132	WBR	
*	NBT	5140	3600	35	940	1825	52	1.0	7.8	B	8	57	55	33	-2----	5140	NBT	*
	NBL	5141	1400	35	10	856	1	1.0	5.2	B	0	57	55	33	-2----	5141	NBL	
	NBR	5142	-	-	193	375	52	1.0	7.8	B	-	57	55	33	-2----	5142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 3050 WEIGHTED AVERAGE DELAY = 10.5 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .51/A WEIGHTED AVERAGE DELAY = 10.1 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 52 - "C" STREET @ COLTON AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	5210	1800	35	119	424	28	1.0	14.0	B	3	38	36	0	1-----	5210	EBT	*
	EBL	5211	-	-	70	250	28	1.0	14.0	B	-	38	36	0	1-----	5211	EBL	
	EBR	5212	-	-	13	46	28	1.0	14.0	B	-	38	36	0	1-----	5212	EBR	
*	SBT	5220	1800	35	207	729	28	1.0	8.1	B	4	52	50	38	-2----	5220	SBT	*
	SBL	5221	1400	35	10	778	1	1.0	6.8	B	0	52	50	38	-2----	5221	SBL	
	SBR	5222	-	-	77	271	28	1.0	8.1	B	-	52	50	38	-2----	5222	SBR	
	WBT	5230	1800	35	119	616	19	1.0	13.4	B	2	38	36	0	1-----	5230	WBT	
	WBL	5231	-	-	10	52	19	1.0	13.4	B	-	38	36	0	1-----	5231	WBL	
	WBR	5232	-	-	10	52	19	1.0	13.4	B	-	38	36	0	1-----	5232	WBR	
	NBT	5240	1800	35	232	924	25	1.0	7.9	B	3	52	50	38	-2----	5240	NBT	
	NBL	5241	1400	35	11	778	1	1.0	6.8	B	0	52	50	38	-2----	5241	NBL	
	NBR	5242	-	-	19	76	25	1.0	7.9	B	-	52	50	38	-2----	5242	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 897 WEIGHTED AVERAGE DELAY = 10.2 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .28/A WEIGHTED AVERAGE DELAY = 10.5 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 53 - "E" STREET @ COLTON STREET C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5310	1800	35	35	200	17	1.0	22.7	C	1	20	18	0	1-----	5310	EBT *
EBL	5311	-	-	18	103	17	1.0	22.7	C	-	20	18	0	1-----	5311	EBL
EBR	5312	-	-	10	57	17	1.0	22.7	C	-	20	18	0	1-----	5312	EBR
SBT	5320	1800	35	177	1254	14	1.0	2.3	A	1	70	68	20	-2----	5320	SBT
SBL	5321	1400	35	10	1058	1	1.0	2.1	A	0	70	68	20	-2----	5321	SBL
SBR	5322	-	-	15	106	14	1.0	2.3	A	-	70	68	20	-2----	5322	SBR
WBT	5330	1800	35	28	210	13	1.0	22.5	C	1	20	18	0	1-----	5330	WBT
WBL	5331	-	-	10	75	13	1.0	22.5	C	-	20	18	0	1-----	5331	WBL
WBR	5332	-	-	10	75	13	1.0	22.5	C	-	20	18	0	1-----	5332	WBR
* NBT	5340	1800	35	231	1304	18	1.0	2.4	A	2	70	68	20	-2----	5340	NBT *
NBL	5341	1400	35	10	1058	1	1.0	2.1	A	0	70	68	20	-2----	5341	NBL
NBR	5342	-	-	10	56	18	1.0	2.4	A	-	70	68	20	-2----	5342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 564 WEIGHTED AVERAGE DELAY = 6.3 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .18/A WEIGHTED AVERAGE DELAY = 6.6 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 54 - "F" STREET @ COLTON AVENUE C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	5410	1800	35	96	599	16	1.0	11.8	B	2	41	39	0	1-----	5410	EBT
EBL	5411	-	-	19	119	16	1.0	11.8	B	-	41	39	0	1-----	5411	EBL
EBR	5412	-	-	10	62	16	1.0	11.8	B	-	41	39	0	1-----	5412	EBR
SBT	5420	1800	35	174	879	20	1.0	8.7	B	2	49	47	41	-2----	5420	SBT
SBL	5421	1400	35	11	731	2	1.0	7.9	B	0	49	47	41	-2----	5421	SBL
SBR	5422	-	-	12	61	20	1.0	8.7	B	-	49	47	41	-2----	5422	SBR
* WBT	5430	1800	35	171	647	26	1.0	12.5	B	3	41	39	0	1-----	5430	WBT *
WBL	5431	-	-	20	76	26	1.0	12.5	B	-	41	39	0	1-----	5431	WBL
WBR	5432	-	-	15	57	26	1.0	12.5	B	-	41	39	0	1-----	5432	WBR
* NBT	5440	1800	35	229	886	26	1.0	9.1	B	3	49	47	41	-2----	5440	NBT *
NBL	5441	1400	35	10	731	1	1.0	7.9	B	0	49	47	41	-2----	5441	NBL
NBR	5442	-	-	14	54	26	1.0	9.1	B	-	49	47	41	-2----	5442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 781 WEIGHTED AVERAGE DELAY = 10.3 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .26/A WEIGHTED AVERAGE DELAY = 10.6 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 55 - "H" STREET @ 10TH STREET   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5510	1800	35	184	789	23	1.0	6.4	B	3	56	54	0	1-----	5510	EBT *
EBL	5511	-	-	55	236	23	1.0	6.4	B	-	56	54	0	1-----	5511	EBL
EBR	5512	-	-	13	56	23	1.0	6.4	B	-	56	54	0	1-----	5512	EBR
SBT	5520	1800	35	73	368	20	1.0	15.3	C	2	34	32	56	-2----	5520	SBT
SBL	5521	-	-	10	50	20	1.0	15.3	C	-	34	32	56	-2----	5521	SBL
SBR	5522	-	-	44	222	20	1.0	15.3	C	-	34	32	56	-2----	5522	SBR
WBT	5530	1800	35	223	991	22	1.0	6.4	B	3	56	54	0	1-----	5530	WBT
WBL	5531	-	-	10	44	22	1.0	6.4	B	-	56	54	0	1-----	5531	WBL
WBR	5532	-	-	10	44	22	1.0	6.4	B	-	56	54	0	1-----	5532	WBR
* NBT	5540	1800	35	116	505	23	1.0	15.5	C	3	34	32	56	-2----	5540	NBT *
NBL	5541	-	-	21	91	23	1.0	15.5	C	-	34	32	56	-2----	5541	NBL
NBR	5542	-	-	10	44	23	1.0	15.5	C	-	34	32	56	-2----	5542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 769   WEIGHTED AVERAGE DELAY = 9.6   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .23/A   WEIGHTED AVERAGE DELAY = 9.8   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

INTERSECTION # 56 - VALLEY BLVD @ 10TH STREET   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5610	3600	35	850	1305	65	1.0	18.9	C	9	35	33	23	-2----	5610	EBT *
* EBL	5611	1700	35	249	397	63	1.0	25.9	D+	5	23	21	0	1-----	5611	EBL *
EBR	5612	-	-	10	15	65	1.0	18.9	C	-	35	33	23	-2----	5612	EBR
SBT	5620	1800	35	10	60	17	1.0	16.1	C	2	32	30	58	--3---	5620	SBT
SBL	5621	-	-	14	84	17	1.0	16.1	C	-	32	30	58	--3---	5621	SBL
SBR	5622	-	-	76	456	17	1.0	16.1	C	-	32	30	58	--3---	5622	SBR
WBT	5630	3600	35	696	1301	53	1.0	17.5	C	7	35	33	23	-2----	5630	WBT
WBL	5631	1700	35	10	397	3	1.0	20.2	C	0	23	21	0	1-----	5631	WBL
WBR	5632	-	-	10	19	53	1.0	17.5	C	-	35	33	23	-2----	5632	WBR
* NBT	5640	1800	35	11	18	63	1.0	20.8	C	8	32	30	58	--3---	5640	NBT *
NBL	5641	-	-	355	566	63	1.0	20.8	C	-	32	30	58	--3---	5641	NBL
NBR	5642	-	-	10	16	63	1.0	20.8	C	-	32	30	58	--3---	5642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2301   WEIGHTED AVERAGE DELAY = 19.4   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .64/B   WEIGHTED AVERAGE DELAY = 20.6   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 57 - "E" STREET @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5710	1800	35	10	23	44	1.0	31.6	D	1	9	7	0	1-----	5710	EBT *
EBL	5711	-	-	16	37	44	1.0	31.6	D	-	9	7	0	1-----	5711	EBL
EBR	5712	-	-	35	80	44	1.0	31.6	D	-	9	7	0	1-----	5712	EBR
SBT	5720	3600	35	1151	3111	37	1.0	.8	A	2	81	79	9	-2----	5720	SBT
SBL	5721	1400	35	12	1229	1	1.0	.5	A	0	81	79	9	-2----	5721	SBL
SBR	5722	-	-	18	49	37	1.0	.8	A	-	81	79	9	-2----	5722	SBR
WBT	5730	1800	35	10	47	21	1.0	29.7	D+	1	9	7	0	1-----	5730	WBT
WBL	5731	-	-	10	47	21	1.0	29.7	D+	-	9	7	0	1-----	5731	WBL
WBR	5732	-	-	10	47	21	1.0	29.7	D+	-	9	7	0	1-----	5732	WBR
* NBT	5740	3600	35	1408	3138	45	1.0	.9	A	3	81	79	9	-2----	5740	NBT *
NBL	5741	1400	35	30	1229	2	1.0	.5	A	0	81	79	9	-2----	5741	NBL
NBR	5742	-	-	10	22	45	1.0	.9	A	-	81	79	9	-2----	5742	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2720 WEIGHTED AVERAGE DELAY = 1.9 DELAY LOS = A CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .45/A WEIGHTED AVERAGE DELAY = 2.2 DELAY LOS = A SYSTEM (BG) OFFSET = 86

INTERSECTION # 58 - FAIRWAY DR/"F"S @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	5810	1800	35	93	489	19	1.0	15.8	C	2	33	31	0	1-----	5810	EBT
EBL	5811	1400	35	19	482	4	1.0	14.9	B	0	33	31	0	1-----	5811	EBL
EBR	5812	-	-	25	131	19	1.0	15.8	C	-	33	31	0	1-----	5812	EBR
SBT	5820	3600	35	860	1248	69	1.0	20.0	C	9	34	32	56	--3---	5820	SBT
* SBL	5821	1700	35	332	397	84	1.0	35.5	D-	8	23	21	33	-2----	5821	SBL *
SBR	5822	-	-	22	32	69	1.0	20.0	C	-	34	32	56	--3---	5822	SBR
WBT	5830	3600	35	171	325	53	1.0	18.3	C	6	33	31	0	1-----	5830	WBT
* WBL	5831	1100	35	310	379	82	1.0	30.0	D+	7	33	31	0	1-----	5831	WBL *
WBR	5832	-	-	481	915	53	1.0	18.3	C	-	33	31	0	1-----	5832	WBR
* NBT	5840	3600	35	864	1041	83	1.0	23.7	C	12	34	32	56	--3---	5840	NBT *
NBL	5841	1700	35	30	397	8	1.0	20.5	C	1	23	21	33	-2----	5841	NBL
NBR	5842	-	-	198	239	83	1.0	23.7	C	-	34	32	56	--3---	5842	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3405 WEIGHTED AVERAGE DELAY = 23.1 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .83/D WEIGHTED AVERAGE DELAY = 27.1 DELAY LOS = D+ SYSTEM (BG) OFFSET = 86

INTERSECTION # 59 - "H" STREET @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	5910	1800	35	10	20	50	1.0	22.6	C	5	25	23	0	1-----	5910	EBT *
EBL	5911	-	-	130	259	50	1.0	22.6	C	-	25	23	0	1-----	5911	EBL
EBR	5912	-	-	91	181	50	1.0	22.6	C	-	25	23	0	1-----	5912	EBR
* SBT	5920	3600	35	1076	2187	49	1.0	4.9	A	7	65	63	25	-2----	5920	SBT *
SBL	5921	1400	35	14	980	1	1.0	3.1	A	0	65	63	25	-2----	5921	SBL
SBR	5922	-	-	164	333	49	1.0	4.9	A	-	65	63	25	-2----	5922	SBR
WBT	5930	1800	35	10	85	12	1.0	19.6	C	1	25	23	0	1-----	5930	WBT
WBL	5931	-	-	10	85	12	1.0	19.6	C	-	25	23	0	1-----	5931	WBL
WBR	5932	-	-	34	290	12	1.0	19.6	C	-	25	23	0	1-----	5932	WBR
NBT	5940	3600	35	967	2494	39	1.0	4.3	A	5	65	63	25	-2----	5940	NBT
NBL	5941	1200	35	131	840	16	1.0	3.5	A	1	65	63	25	-2----	5941	NBL
NBR	5942	-	-	10	26	39	1.0	4.3	A	-	65	63	25	-2----	5942	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2647 WEIGHTED AVERAGE DELAY = 6.4 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .49/A WEIGHTED AVERAGE DELAY = 7.6 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 60 - VALLEY BLVD @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	6010	3600	35	354	409	87	1.0	31.6	D	9	24	22	11	-2----	6010	EBT *
EBL	6011	3200	35	164	320	51	1.0	30.4	D	2	11	9	0	1-----	6011	EBL
EBR	6012	-	-	408	471	87	1.0	31.6	D	-	24	22	11	-2----	6012	EBR
* SBT	6020	3600	35	1029	1187	87	1.0	24.4	C	13	36	34	54	---4--	6020	SBT *
SBL	6021	1700	35	10	321	3	1.0	22.7	C	0	19	17	35	--3---	6021	SBL
SBR	6022	-	-	150	173	87	1.0	24.4	C	-	36	34	54	---4--	6022	SBR
WBT	6030	3600	35	330	569	58	1.0	23.5	C	5	24	22	11	-2----	6030	WBT
* WBL	6031	3200	35	272	320	85	1.0	44.0	E+	3	11	9	0	1-----	6031	WBL *
WBR	6032	-	-	180	311	58	1.0	23.5	C	-	24	22	11	-2----	6032	WBR
NBT	6040	3600	35	760	1130	67	1.0	18.8	C	9	36	34	54	---4--	6040	NBT
* NBL	6041	1700	35	272	321	85	1.0	40.2	E+	6	19	17	35	--3---	6041	NBL *
NBR	6042	-	-	155	230	67	1.0	18.8	C	-	36	34	54	---4--	6042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 4084 WEIGHTED AVERAGE DELAY = 27.0 DELAY LOS = D+ CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .86/D WEIGHTED AVERAGE DELAY = 30.5 DELAY LOS = D SYSTEM (BG) OFFSET = 86

INTERSECTION # 61 - FAIRWAY DRIVE @ SPERRY DRIVE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	6110	3600	35	575	978	59	1.0	22.1	C	6	27	25	27	-2----	6110	EBT
EBL	6111	1700	35	33	472	7	1.0	18.2	C	1	27	25	0	1-----	6111	EBL
EBR	6112	-	-	13	22	59	1.0	22.1	C	-	27	25	27	-2----	6112	EBR
SBT	6120	1800	35	10	151	7	1.0	13.6	B	1	36	34	54	--3---	6120	SBT
SBL	6121	-	-	12	181	7	1.0	13.6	B	-	36	34	54	--3---	6121	SBL
SBR	6122	-	-	23	348	7	1.0	13.6	B	-	36	34	54	--3---	6122	SBR
* WBT	6130	3600	35	827	987	84	1.0	28.0	D+	10	27	25	27	-2----	6130	WBT *
* WBL	6131	1700	35	397	472	84	1.0	32.6	D	9	27	25	0	1-----	6131	WBL *
WBR	6132	-	-	11	13	84	1.0	28.0	D+	-	27	25	27	-2----	6132	WBR
* NBT	6140	1800	35	13	15	85	1.0	26.8	D+	13	36	34	54	--3---	6140	NBT *
NBL	6141	1300	35	102	491	21	1.0	14.4	B	2	36	34	54	--3---	6141	NBL
NBR	6142	-	-	564	665	85	1.0	26.8	D+	-	36	34	54	--3---	6142	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 2580   WEIGHTED AVERAGE DELAY = 26.2   DELAY LOS = D+   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .84/D   WEIGHTED AVERAGE DELAY = 28.6   DELAY LOS = D+   SYSTEM (BG) OFFSET = 86

INTERSECTION # 62 - I-10 E/B @ MT VERNON AVE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	6210	3600	35	825	2640	31	1.0	3.2	A	3	68	66	0	12----	6210	EBT
* EBL	6211	1700	35	432	491	88	1.0	35.5	D-	10	28	26	0	1-----	6211	EBL *
SBL	6221	3818	35	648	848	76	1.0	28.0	D+	7	22	20	68	--3---	6221	SBL
* SBR	6222	1182	35	233	263	89	1.0	46.4	E	6	22	20	68	--3---	6222	SBR *
* WBT	6230	3600	35	1336	1520	88	1.0	23.0	C	15	40	38	28	-2----	6230	WBT *
WBR	6232	1800	35	522	760	69	1.0	18.0	C	10	40	38	28	-2----	6232	WBR

INTERSECTION SUMMARY : TOTAL FLOW = 3996   WEIGHTED AVERAGE DELAY = 21.8   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .88/D   WEIGHTED AVERAGE DELAY = 28.4   DELAY LOS = D+   SYSTEM (BG) OFFSET = 86

INTERSECTION # 63 - "M" STREET @ FOGG STREET C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	6310	1800	35	52	688	8	1.0	10.5	B	1	43	41	0	1-----	6310	EBT
EBR	6312	-	-	10	132	8	1.0	10.5	B	-	43	41	0	1-----	6312	EBR
* WBT	6330	1800	35	65	423	15	1.0	10.9	B	2	43	41	0	1-----	6330	WBT *
WBL	6331	-	-	61	397	15	1.0	10.9	B	-	43	41	0	1-----	6331	WBL
NBL	6341	1700	35	10	850	1	1.0	8.6	B	0	47	45	43	-2----	6341	NBL
* NBR	6342	1800	35	138	900	15	1.0	9.3	B	2	47	45	43	-2----	6342	NBR *

INTERSECTION SUMMARY : TOTAL FLOW = 336 WEIGHTED AVERAGE DELAY = 10.1 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .15/A WEIGHTED AVERAGE DELAY = 10.1 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 64 - "M" STREET @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	6411	1004	35	165	245	67	1.0	28.4	D+	4	24	22	0	1-----	6411	EBL *
EBR	6412	2496	35	69	610	11	1.0	20.1	C	0	24	22	0	1-----	6412	EBR
* SBT	6420	3600	35	1381	2007	69	1.0	10.1	B	12	56	54	34	--3---	6420	SBT *
SBR	6422	-	-	105	153	69	1.0	10.1	B	-	56	54	34	--3---	6422	SBR
NBT	6440	3600	35	1686	2560	66	1.0	5.9	B	11	66	64	24	-23---	6440	NBT
* NBL	6441	1700	35	103	151	68	1.0	38.4	D-	2	10	8	24	-2----	6441	NBL *

INTERSECTION SUMMARY : TOTAL FLOW = 3509 WEIGHTED AVERAGE DELAY = 9.9 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .68/B WEIGHTED AVERAGE DELAY = 13.4 DELAY LOS = B SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
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MONITOR

INTERSECTION # 65 - COOLEY DRIVE @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/27/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
* EBT	6510	1800	35	33	61	54	1.0	22.5	C	5	26	24	0	1-----	6510	EBT *
EBL	6511	-	-	136	252	54	1.0	22.5	C	-	26	24	0	1-----	6511	EBL
EBR	6512	-	-	90	167	54	1.0	22.5	C	-	26	24	0	1-----	6512	EBR
SBT	6520	5400	35	1073	2077	52	1.0	15.7	C	7	38	36	52	--3---	6520	SBT
* SBL	6521	1700	35	252	453	56	1.0	22.8	C	5	26	24	26	-2----	6521	SBL *
SBR	6522	-	-	43	83	52	1.0	15.7	C	-	38	36	52	--3---	6522	SBR
WBT	6530	3600	35	21	960	2	1.0	18.5	C	0	26	24	0	1-----	6530	WBT
WBL	6531	1700	35	94	453	21	1.0	19.5	C	2	26	24	0	1-----	6531	WBL
WBR	6532	1800	35	217	480	45	1.0	21.5	C	4	26	24	0	1-----	6532	WBR
* NBT	6540	5400	35	1064	1946	55	1.0	16.0	C	7	38	36	52	--3---	6540	NBT *
NBL	6541	1700	35	113	453	25	1.0	19.8	C	2	26	24	26	-2----	6541	NBL
NBR	6542	-	-	117	214	55	1.0	16.0	C	-	38	36	52	--3---	6542	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3253 WEIGHTED AVERAGE DELAY = 17.6 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .55/A WEIGHTED AVERAGE DELAY = 18.0 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 66 - SAN ANTONIO DRI @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/27/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
EBT	6610	1800	35	22	282	8	1.0	13.7	B	1	36	34	0	1-----	6610	EBT
* EBL	6611	1700	35	373	642	58	1.0	18.0	C	7	36	34	0	1-----	6611	EBL *
EBR	6612	-	-	31	398	8	1.0	13.7	B	-	36	34	0	1-----	6612	EBR
* SBT	6620	5400	35	1211	2100	58	1.0	13.6	B	8	44	42	46	--3---	6620	SBT *
* SBL	6621	1700	35	85	151	56	1.0	33.5	D	2	10	8	36	-2----	6621	SBL *
SBR	6622	-	-	242	420	58	1.0	13.6	B	-	44	42	46	--3---	6622	SBR
WBT	6630	1800	35	28	108	26	1.0	14.8	B	3	36	34	0	1-----	6630	WBT
WBL	6631	-	-	10	39	26	1.0	14.8	B	-	36	34	0	1-----	6631	WBL
WBR	6632	-	-	138	533	26	1.0	14.8	B	-	36	34	0	1-----	6632	WBR
NBT	6640	5400	35	854	2389	36	1.0	11.8	B	4	44	42	46	--3---	6640	NBT
NBL	6641	1700	35	78	151	52	1.0	32.4	D	2	10	8	36	-2----	6641	NBL
NBR	6642	-	-	47	131	36	1.0	11.8	B	-	44	42	46	--3---	6642	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 3119 WEIGHTED AVERAGE DELAY = 14.7 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .58/A WEIGHTED AVERAGE DELAY = 15.4 DELAY LOS = C SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 67 - CENTER POINT DR @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/27/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	EBT	6710	1800	35	10	30	33	1.0	27.8	D+	2	13	11	0	1-----	6710	EBT	
	EBL	6711	-	-	14	42	33	1.0	27.8	D+	-	13	11	0	1-----	6711	EBL	
	EBR	6712	-	-	49	148	33	1.0	27.8	D+	-	13	11	0	1-----	6712	EBR	
*	SBT	6720	5400	35	1231	3444	36	1.0	5.7	B	4	60	58	30	--3---	6720	SBT	*
	SBL	6721	1700	35	23	283	8	1.0	24.1	C	0	17	15	13	-2----	6721	SBL	
	SBR	6722	-	-	13	36	36	1.0	5.7	B	-	60	58	30	--3---	6722	SBR	
*	WBT	6730	1800	35	10	29	34	1.0	27.9	D+	2	13	11	0	1-----	6730	WBT	*
	WBL	6731	-	-	38	111	34	1.0	27.9	D+	-	13	11	0	1-----	6731	WBL	
	WBR	6732	-	-	27	79	34	1.0	27.9	D+	-	13	11	0	1-----	6732	WBR	
	NBT	6740	5400	35	950	3098	31	1.0	5.4	B	4	60	58	30	--3---	6740	NBT	
*	NBL	6741	1700	35	101	283	36	1.0	25.6	D+	2	17	15	13	-2----	6741	NBL	*
	NBR	6742	-	-	117	382	31	1.0	5.4	B	-	60	58	30	--3---	6742	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 2583 WEIGHTED AVERAGE DELAY = 7.8 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .36/A WEIGHTED AVERAGE DELAY = 8.3 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 68 - WASHINGTON ST W @ MT VERNON AVENU C.E. UPDATE YEAR 2010 CIRCULATION PLAN PM .Peak Period 07/27/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	6810	3600	35	980	1160	84	1.0	26.0	D+	11	31	29	0	1-----	6810	EBT	*
	EBL	6811	3200	35	139	1031	13	1.0	16.5	C	1	31	29	0	1-----	6811	EBL	
	EBR	6812	1800	35	90	580	16	1.0	16.6	C	2	31	29	0	1-----	6812	EBR	
	SBT	6820	5400	35	205	300	68	1.0	36.2	D-	1	7	5	83	---4--	6820	SBT	
*	SBL	6821	3200	35	902	1067	85	1.0	26.0	D+	10	32	30	51	--3---	6821	SBL	*
	SBR	6822	1800	35	134	1800	7	1.0	.0	A	0	90	90	0	1234--	6822	SBR	
*	WBT	6830	3600	35	593	720	82	1.0	31.9	D	7	20	18	31	-2----	6830	WBT	*
	WBL	6831	3200	35	18	640	3	1.0	22.0	C	0	20	18	31	-2----	6831	WBL	
	WBR	6832	1800	35	650	1800	36	1.0	.1	A	0	90	90	0	1234--	6832	WBR	
*	NBT	6840	5400	35	240	300	80	1.0	42.0	E+	2	7	5	83	---4--	6840	NBT	*
	NBL	6841	1700	35	378	567	67	1.0	21.8	C	8	32	30	51	--3---	6841	NBL	
	NBR	6842	1800	35	754	1800	42	1.0	.1	A	0	90	90	0	1234--	6842	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 5083 WEIGHTED AVERAGE DELAY = 19.3 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .84/D WEIGHTED AVERAGE DELAY = 28.7 DELAY LOS = D+ SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 69 - I-215 N/B OFF R @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	6911	3200	35	1052	1351	78	1.0	19.3	C	11	40	38	0	1-----	6911	EBL *
EBR	6912	1800	35	96	760	13	1.0	12.1	B	1	40	38	0	1-----	6912	EBR
* SBT	6920	3600	35	426	549	78	1.0	27.4	D+	8	24	22	66	--3---	6920	SBT *
SBR	6922	-	-	257	331	78	1.0	27.4	D+	-	24	22	0	123---	6922	SBR
NBT	6940	1800	35	373	960	39	1.0	9.6	B	5	50	48	40	-23---	6940	NBT
* NBL	6941	1700	35	348	453	77	1.0	28.7	D+	8	26	24	40	-2----	6941	NBL *

INTERSECTION SUMMARY : TOTAL FLOW = 2552   WEIGHTED AVERAGE DELAY = 21.0   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .77/C   WEIGHTED AVERAGE DELAY = 23.5   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 70 - WASHINGTON ST E @ MT VERNON AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	7010	3600	35	1838	2160	85	1.0	13.9	B	18	56	54	11	-2----	7010	EBT *
EBR	7012	1800	35	532	1800	30	1.0	.0	A	0	90	90	0	123---	7012	EBR
WBT	7030	3600	35	1827	2600	70	1.0	6.0	B	12	67	65	0	12----	7030	WBT
* WBL	7031	1700	35	150	170	88	1.0	57.4	E-	4	11	9	0	1-----	7031	WBL *
NBL	7041	2003	35	393	467	84	1.0	34.4	D	4	23	21	67	--3---	7041	NBL
* NBR	7042	3297	35	677	769	88	1.0	33.9	D	8	23	21	67	--3---	7042	NBR *

INTERSECTION SUMMARY : TOTAL FLOW = 5417   WEIGHTED AVERAGE DELAY = 15.1   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .86/D   WEIGHTED AVERAGE DELAY = 21.4   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 71 - WASHINGTON STRE @ BLUFF ROAD   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	7110	5400	35	2569	3147	82	1.0	12.1	B	17	56	54	7	-2----	7110	EBT	*
	EBL	7111	1700	35	22	94	23	1.0	31.2	D	1	7	5	0	1-----	7111	EBL	
	EBR	7112	-	-	76	93	82	1.0	12.1	B	-	56	54	7	-2----	7112	EBR	
*	SBT	7120	1800	35	10	13	75	1.0	53.6	E	1	6	4	63	--3---	7120	SBT	*
	SBL	7121	-	-	29	39	75	1.0	53.6	E	-	6	4	63	--3---	7121	SBL	
	SBR	7122	-	-	21	28	75	1.0	53.6	E	-	6	4	63	--3---	7122	SBR	
	WBT	7130	5400	35	1758	3222	55	1.0	8.3	B	8	56	54	7	-2----	7130	WBT	
*	WBL	7131	1700	35	84	94	89	1.0	73.5	F	2	7	5	0	1-----	7131	WBL	*
	WBR	7132	-	-	10	18	55	1.0	8.3	B	-	56	54	7	-2----	7132	WBR	
*	NBT	7140	1800	35	10	12	80	1.0	33.9	D	7	21	19	69	---4--	7140	NBT	*
	NBL	7141	-	-	294	367	80	1.0	33.9	D	-	21	19	69	---4--	7141	NBL	
	NBR	7142	1800	35	110	380	29	1.0	22.8	C	2	21	19	69	---4--	7142	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 4993   WEIGHTED AVERAGE DELAY = 13.9   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .81/D   WEIGHTED AVERAGE DELAY = 16.7   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 72 - WASHINGTON STRE @ MEADOW LANE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	7210	5400	35	2147	2913	74	1.0	11.8	B	13	53	51	23	-2----	7210	EBT	*
*	EBL	7211	1700	35	286	397	72	1.0	28.7	D+	6	23	21	0	1-----	7211	EBL	*
	EBR	7212	-	-	108	147	74	1.0	11.8	B	-	53	51	23	-2----	7212	EBR	
*	SBT	7220	1800	35	10	14	73	1.0	36.0	D-	4	14	12	76	--3---	7220	SBT	*
	SBL	7221	-	-	26	36	73	1.0	36.0	D-	-	14	12	76	--3---	7221	SBL	
	SBR	7222	-	-	139	191	73	1.0	36.0	D-	-	14	12	76	--3---	7222	SBR	
	WBT	7230	5400	35	2024	3001	67	1.0	10.9	B	11	53	51	23	-2----	7230	WBT	
	WBL	7231	1700	35	80	397	20	1.0	21.2	C	2	23	21	0	1-----	7231	WBL	
	WBR	7232	-	-	40	59	67	1.0	10.9	B	-	53	51	23	-2----	7232	WBR	
	NBT	7240	1800	35	13	20	65	1.0	32.7	D	4	14	12	76	--3---	7240	NBT	
	NBL	7241	-	-	88	135	65	1.0	32.7	D	-	14	12	76	--3---	7241	NBL	
	NBR	7242	-	-	56	86	65	1.0	32.7	D	-	14	12	76	--3---	7242	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 5017   WEIGHTED AVERAGE DELAY = 14.0   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .73/C   WEIGHTED AVERAGE DELAY = 15.1   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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MONITOR

INTERSECTION # 73 - WASHINGTON STRE @ COOLEY DR/BARTO   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	7310	5400	35	1973	2280	87	1.0	20.9	C	14	40	38	23	--3---	7310	EBT *
EBL	7311	1700	35	231	264	87	1.0	46.9	E	6	16	14	0	1-----	7311	EBL
EBR	7312	1800	35	10	1800	1	1.0	.0	A	0	90	90	0	12345-	7312	EBR
SBT	7320	3600	35	208	600	35	1.0	25.4	D+	2	17	15	73	----5-	7320	SBT
* SBL	7321	1700	35	133	151	88	1.0	59.7	E-	3	10	8	63	---4--	7321	SBL *
* SBR	7322	1800	35	254	300	85	1.0	41.7	E+	6	17	15	73	----5-	7322	SBR *
WBT	7330	5400	35	1481	2652	56	1.0	12.1	B	8	47	45	16	-23---	7330	WBT
* WBL	7331	3200	35	664	747	89	1.0	34.9	D	8	23	21	0	12----	7331	WBL *
WBR	7332	-	-	27	48	56	1.0	12.1	B	-	47	45	16	-23---	7332	WBR
NBT	7340	3600	35	224	600	37	1.0	25.6	D+	2	17	15	73	----5-	7340	NBT
NBL	7341	1700	35	103	151	68	1.0	38.4	D-	2	10	8	63	---4--	7341	NBL
NBR	7342	1800	35	960	1800	53	1.0	.3	A	0	90	90	0	12345-	7342	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 6268   WEIGHTED AVERAGE DELAY = 20.3   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .87/D   WEIGHTED AVERAGE DELAY = 27.4   DELAY LOS = D+   SYSTEM (BG) OFFSET = 86

INTERSECTION # 74 - WASHINGTON STRE @ MOHAVE DRIVE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	7410	5400	35	2563	3930	65	1.0	4.3	A	10	70	68	9	-2----	7410	EBT *
EBL	7411	1700	35	26	132	20	1.0	29.7	D+	1	9	7	0	1-----	7411	EBL
EBR	7412	-	-	98	150	65	1.0	4.3	A	-	70	68	9	-2----	7412	EBR
SBT	7420	1800	35	10	18	54	1.0	32.0	D	2	11	9	79	--3---	7420	SBT
SBL	7421	-	-	64	118	54	1.0	32.0	D	-	11	9	79	--3---	7421	SBL
SBR	7422	-	-	24	44	54	1.0	32.0	D	-	11	9	79	--3---	7422	SBR
WBT	7430	5400	35	2134	3974	54	1.0	3.6	A	7	70	68	9	-2----	7430	WBT
* WBL	7431	1700	35	85	132	64	1.0	37.8	D-	2	9	7	0	1-----	7431	WBL *
WBR	7432	-	-	57	106	54	1.0	3.6	A	-	70	68	9	-2----	7432	WBR
* NBT	7440	1800	35	11	17	66	1.0	35.8	D-	3	11	9	79	--3---	7440	NBT *
NBL	7441	-	-	65	98	66	1.0	35.8	D-	-	11	9	79	--3---	7441	NBL
NBR	7442	-	-	43	65	66	1.0	35.8	D-	-	11	9	79	--3---	7442	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 5180   WEIGHTED AVERAGE DELAY = 5.9   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .65/B   WEIGHTED AVERAGE DELAY = 6.6   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 75 - WASHINGTON STRE @ RECHE CANYON RO   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	7510	5400	35	1760	1703	103**	1.0	61.4	F	25	43	41	62	-2----	7510	EBT	*
*	EBR	7512	1800	35	909	914	99**	1.0	47.2	E	32	68	66	62	-23---	7512	EBR	*
	WBT	7530	5400	35	1858	4278	43	1.0	3.3	A	6	105	103	0	12----	7530	WBT	
*	WBL	7531	3200	35	1491	1477	101**	1.0	48.4	E	41	62	60	0	1-----	7531	WBL	*
	NBL	7541	5250	35	418	422	99**	1.0	62.1	F	11	25	23	105	--3---	7541	NBL	
	NBR	7542	-	-	501	506	99**	1.0	62.1	F	-	25	23	105	--3---	7542	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 6937   WEIGHTED AVERAGE DELAY = 41.3   DELAY LOS = E+   CYCLE = 130
* CRITICAL MOVEMENT SUMMARY : ICU = 1.01/F   WEIGHTED AVERAGE DELAY = 53.6   DELAY LOS = E   SYSTEM (BG) OFFSET = 126
<<<< INTERSECTION OVERSATURATED - DELAY VALUES MAY BE UNREALISTIC - MITIGATIONS RECOMMENDED >>>>

INTERSECTION # 76 - REDLANDS BLVD @ HUNTS LANE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
*	EBT	7610	3600	35	116	117	100**	1.0	96.8	F	3	9	7	26	--3---	7610	EBT	*
	EBL	7611	1700	35	105	118	89	1.0	82.1	F	4	11	9	0	1-----	7611	EBL	
	EBR	7612	-	-	77	77	100**	1.0	96.8	F	-	9	7	26	--3---	7612	EBR	
	SBT	7620	3600	35	1163	2249	52	1.0	8.1	B	11	90	88	40	----56	7620	SBT	
	SBL	7621	1700	35	631	680	93**	1.0	42.8	E+	22	54	52	35	---45-	7621	SBL	
	SBR	7622	-	-	97	188	52	1.0	8.1	B	-	90	88	40	----56	7622	SBR	
	WBT	7630	3600	35	81	609	13	1.0	34.9	D	1	24	22	11	-23---	7630	WBT	
*	WBL	7631	1700	35	289	314	92**	1.0	62.7	F	10	26	24	0	12----	7631	WBL	*
	WBR	7632	1800	35	787	1052	75	1.0	17.4	C	21	78	76	11	-2345-	7632	WBR	
*	NBT	7640	3600	35	741	791	94**	1.0	45.1	E	17	41	39	89	-----6	7640	NBT	*
*	NBL	7641	1700	35	40	39	102**	1.0	170.6	F	2	5	3	35	---4--	7641	NBL	*
	NBR	7642	-	-	271	289	94**	1.0	45.1	E	-	41	39	89	-----6	7642	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 4398   WEIGHTED AVERAGE DELAY = 34.5   DELAY LOS = D   CYCLE = 130
* CRITICAL MOVEMENT SUMMARY : ICU = .94/E   WEIGHTED AVERAGE DELAY = 58.2   DELAY LOS = E-   SYSTEM (BG) OFFSET = 126

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 77 - COOLEY LANE @ HUNTS LANE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	7711	1700	35	549	661	83	1.0	25.3	D+	12	37	35	0	1-----	7711	EBL *
EBR	7712	1800	35	80	700	11	1.0	13.4	B	1	37	35	0	1-----	7712	EBR
* SBT	7720	3600	35	1081	1315	82	1.0	14.2	B	17	53	51	37	-2----	7720	SBT *
SBR	7722	-	-	596	725	82	1.0	14.2	B	-	53	51	37	-2----	7722	SBR
NBT	7740	3600	35	499	2040	24	1.0	7.5	B	3	53	51	37	-2----	7740	NBT
NBL	7741	1300	35	55	737	7	1.0	6.7	B	1	53	51	37	-2----	7741	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 2860   WEIGHTED AVERAGE DELAY = 15.0   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .83/D   WEIGHTED AVERAGE DELAY = 17.0   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 78 - WASHINGTON STRE @ HUNTS LANE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	7810	5400	35	1792	4680	38	1.0	.9	A	2	80	78	0	12----	7810	EBT
EBL	7811	3200	35	470	1031	46	1.0	18.7	C	4	31	29	0	1-----	7811	EBL
* SBL	7821	1700	35	137	151	91**	1.0	64.7	F	3	10	8	80	--3---	7821	SBL *
* SBR	7822	3600	35	1027	1560	66	1.0	16.2	C	10	41	39	0	1-3---	7822	SBR *
* WBT	7830	5400	35	2322	2569	90	1.0	18.4	C	19	49	47	31	-2----	7830	WBT *
WBR	7832	-	-	227	251	90	1.0	18.4	C	-	49	47	31	-2----	7832	WBR

INTERSECTION SUMMARY : TOTAL FLOW = 5975   WEIGHTED AVERAGE DELAY = 13.9   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .80/D   WEIGHTED AVERAGE DELAY = 19.5   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 79 - WASHINGTON STRE @ WEIR ROAD — C.E. UPDATE — YEAR 2010 CIRCULATION PLAN — PM .Peak Period 07/27/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
EBT	7910	5400	35	1867	3780	49	1.0	4.8	A	7	65	63	0	12----	7910	EBT
* EBL	7911	1700	35	62	94	66	1.0	42.2	E+	1	7	5	0	1-----	7911	EBL *
SBL	7921	1700	35	34	434	8	1.0	19.4	C	1	25	23	65	--3---	7921	SBL
* SBR	7922	1800	35	312	460	68	1.0	25.9	D+	7	25	23	65	--3---	7922	SBR *
* WBT	7930	5400	35	2239	3360	67	1.0	8.8	B	11	58	56	7	-2----	7930	WBT *
WBR	7932	1800	35	20	1120	2	1.0	5.0	A	0	58	56	7	-2----	7932	WBR

INTERSECTION SUMMARY : TOTAL FLOW = 4534 WEIGHTED AVERAGE DELAY = 8.8 DELAY LOS = B CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .67/B WEIGHTED AVERAGE DELAY = 11.6 DELAY LOS = B SYSTEM (BG) OFFSET = 86

INTERSECTION # 80 - WASHINGTON STRE @ WATERMAN AVENUE — C.E. UPDATE — YEAR 2010 CIRCULATION PLAN — PM .Peak Period 07/27/92

APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH
(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)
EBT	8010	5400	35	1315	3573	37	1.0	5.1	B	4	62	60	0	12----	8010	EBT
* EBL	8011	3200	35	672	889	76	1.0	25.4	D+	7	27	25	0	1-----	8011	EBL *
EBR	8012	-	-	10	27	37	1.0	5.1	B	-	62	60	0	12----	8012	EBR
SBT	8020	1800	35	11	520	2	1.0	17.4	C	0	28	26	62	--34--	8020	SBT
* SBL	8021	3200	35	586	747	78	1.0	28.7	D+	6	23	21	62	--3---	8021	SBL *
* SBR	8022	1800	35	674	1060	64	1.0	10.2	B	11	55	53	0	1-34--	8022	SBR *
* WBT	8030	5400	35	1551	1980	78	1.0	20.9	C	11	35	33	27	-2----	8030	WBT *
WBL	8031	1700	35	10	623	2	1.0	13.8	B	0	35	33	27	-2----	8031	WBL
WBR	8032	1800	35	288	660	44	1.0	16.7	C	5	35	33	27	-2----	8032	WBR
NBT	8040	1800	35	14	25	57	1.0	41.2	E+	1	5	3	85	---4--	8040	NBT
NBL	8041	-	-	10	18	57	1.0	41.2	E+	-	5	3	85	---4--	8041	NBL
NBR	8042	-	-	10	18	57	1.0	41.2	E+	-	5	3	85	---4--	8042	NBR

INTERSECTION SUMMARY : TOTAL FLOW = 5151 WEIGHTED AVERAGE DELAY = 16.8 DELAY LOS = C CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .72/C WEIGHTED AVERAGE DELAY = 21.0 DELAY LOS = C SYSTEM (BG) OFFSET = 86

INTERSECTION # 81 - WASHINGTON STRE @ 1215 N/B ON RAM   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	8110	5400	35	2541	5400	47	1.0	.1	A	0	90	90	0	12----	8110	EBT *
EBL	8111	1700	35	167	623	27	1.0	15.3	C	3	35	33	0	1-----	8111	EBL
* WBT	8130	5400	35	1852	2617	71	1.0	10.5	B	13	55	53	35	-2----	8130	WBT *
WBR	8132	-	-	398	563	71	1.0	10.5	B	-	55	53	35	-2----	8132	WBR

INTERSECTION SUMMARY :   TOTAL FLOW = 4958   WEIGHTED AVERAGE DELAY = 5.3   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .56/A   WEIGHTED AVERAGE DELAY = 5.0   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 82 - OLIVE STREET   @ MERIDIAN AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBT	8210	1800	35	341	615	55	1.0	9.1	B	9	55	53	0	1-----	8210	EBT *
EBL	8211	-	-	162	292	55	1.0	9.1	B	-	55	53	0	1-----	8211	EBL
EBR	8212	-	-	85	153	55	1.0	9.1	B	-	55	53	0	1-----	8212	EBR
SBT	8220	1800	35	95	352	27	1.0	15.3	C	3	35	33	55	-2----	8220	SBT
SBL	8221	-	-	38	141	27	1.0	15.3	C	-	35	33	55	-2----	8221	SBL
SBR	8222	-	-	45	167	27	1.0	15.3	C	-	35	33	55	-2----	8222	SBR
WBT	8230	1800	35	206	766	27	1.0	6.9	B	3	55	53	0	1-----	8230	WBT
WBL	8231	-	-	10	37	27	1.0	6.9	B	-	55	53	0	1-----	8231	WBL
WBR	8232	-	-	69	257	27	1.0	6.9	B	-	55	53	0	1-----	8232	WBR
* NBT	8240	1800	35	291	523	56	1.0	18.1	C	7	35	33	55	-2----	8240	NBT *
NBL	8241	-	-	66	119	56	1.0	18.1	C	-	35	33	55	-2----	8241	NBL
NBR	8242	-	-	10	18	56	1.0	18.1	C	-	35	33	55	-2----	8242	NBR

INTERSECTION SUMMARY :   TOTAL FLOW = 1418   WEIGHTED AVERAGE DELAY = 11.8   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY :   ICU = .56/A   WEIGHTED AVERAGE DELAY = 12.6   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
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INTERSECTION # 83 - VALLEY BOULEVAR @ MERIDIAN AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/27/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
EBT	8310	3600	35	1562	3160	49	1.0	1.0	A	4	81	79	0	12----	8310	EBT
* EBL	8311	1700	35	44	76	58	1.0	39.9	D-	1	6	4	0	1-----	8311	EBL *
* SBL	8321	1700	35	79	132	60	1.0	35.8	D-	2	9	7	81	--3---	8321	SBL *
SBR	8322	1800	35	32	140	23	1.0	29.8	D+	1	9	7	81	--3---	8322	SBR
* WBT	8330	3600	35	1460	2495	59	1.0	2.6	A	7	75	73	6	-2----	8330	WBT *
WBR	8332	-	-	249	425	59	1.0	2.6	A	-	75	73	6	-2----	8332	WBR

INTERSECTION SUMMARY : TOTAL FLOW = 3426   WEIGHTED AVERAGE DELAY = 3.4   DELAY LOS = A   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .59/A   WEIGHTED AVERAGE DELAY = 4.9   DELAY LOS = A   SYSTEM (BG) OFFSET = 86

INTERSECTION # 85 - SLOVER AVENUE @ PEPPER AVENUE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)
* EBL	8511	1700	35	895	1058	85	1.0	15.2	C	18	58	56	0	1-----	8511	EBL *
EBR	8512	1800	35	10	1120	1	1.0	4.9	A	0	58	56	0	1-----	8512	EBR
* SBT	8520	3600	35	250	292	86	1.0	26.0	D+	12	32	30	58	-2----	8520	SBT *
SBR	8522	-	-	777	908	86	1.0	26.0	D+	-	32	30	58	-2----	8522	SBR
NBT	8540	3600	35	394	1200	33	1.0	17.2	C	3	32	30	58	-2----	8540	NBT
NBL	8541	1400	35	10	467	2	1.0	15.3	C	0	32	30	58	-2----	8541	NBL

INTERSECTION SUMMARY : TOTAL FLOW = 2336   WEIGHTED AVERAGE DELAY = 20.2   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .85/D   WEIGHTED AVERAGE DELAY = 21.0   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
AS PART OF
THE TRAFFIC GROWTH MONITORING PROGRAM
MONITOR

INTERSECTION # 86 - AGUA MANSA ROAD @ RIVERSIDE AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

	APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH	
	(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)	
*	EBT	8610	1800	35	356	385	92**	1.0	41.3	E+	11	27	25	0	1-----	8610	EBT	*
	EBL	8611	1100	35	246	306	81	1.0	33.3	D	6	27	25	0	1-----	8611	EBL	
	EBR	8612	-	-	106	115	92**	1.0	41.3	E+	-	27	25	0	1-----	8612	EBR	
*	SBT	8620	3600	35	1924	2130	90	1.0	13.3	B	22	63	61	27	-2----	8620	SBT	*
	SBL	8621	1400	35	35	949	4	1.0	3.7	A	0	63	61	27	-2----	8621	SBL	
	SBR	8622	-	-	280	310	90	1.0	13.3	B	-	63	61	27	-2----	8622	SBR	
	WBT	8630	1800	35	306	483	63	1.0	23.6	C	7	27	25	0	1-----	8630	WBT	
	WBL	8631	1400	35	10	389	3	1.0	18.0	C	0	27	25	0	1-----	8631	WBL	
	WBR	8632	-	-	11	17	63	1.0	23.6	C	-	27	25	0	1-----	8632	WBR	
	NBT	8640	3600	35	1919	2427	79	1.0	9.1	B	16	63	61	27	-2----	8640	NBT	
	NBL	8641	1300	35	114	881	13	1.0	3.9	A	1	63	61	27	-2----	8641	NBL	
	NBR	8642	-	-	10	13	79	1.0	9.1	B	-	63	61	27	-2----	8642	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 5317   WEIGHTED AVERAGE DELAY = 15.5   DELAY LOS = C   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .91/E   WEIGHTED AVERAGE DELAY = 18.1   DELAY LOS = C   SYSTEM (BG) OFFSET = 86

INTERSECTION # 87 - BARTON ROAD @ WASHINGTON STRE   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

	APPROACH	LINK	SAT FLOW	SPEED	VOL(V)	CAP(C)	V/C	PAF	STOP DELAY	LOS	QUEUE	MOVE TIME	EFF GRN	LOCAL OFFSET	PHASING SEQUENCE	LINK	APPROACH	
	(DIR)	(#)	(VPH)	(MPH)	(VPH)	(VPH)	(X-%)		(SEC/VEH)		(VEH/LN)	(SEC)	(SEC)	(SEC)		(#)	(DIR)	
	SBT	8720	3600	35	315	1840	17	1.0	9.0	B	2	48	46	42	-2----	8720	SBT	
	SBL	8721	1400	35	10	716	1	1.0	8.3	B	0	48	46	42	-2----	8721	SBL	
*	WBL	8731	1700	35	288	756	38	1.0	12.9	B	5	42	40	0	1-----	8731	WBL	*
	WBR	8732	1800	35	10	800	1	1.0	10.6	B	0	42	40	0	1-----	8732	WBR	
*	NBT	8740	3600	35	441	1163	38	1.0	10.2	B	5	48	46	42	-2----	8740	NBT	*
	NBR	8742	-	-	257	677	38	1.0	10.2	B	-	48	46	42	-2----	8742	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 1321   WEIGHTED AVERAGE DELAY = 10.5   DELAY LOS = B   CYCLE = 90
* CRITICAL MOVEMENT SUMMARY : ICU = .38/A   WEIGHTED AVERAGE DELAY = 11.0   DELAY LOS = B   SYSTEM (BG) OFFSET = 86

TRAFFIC SIGNAL SYSTEM CAPACITY / LEVEL OF SERVICE ANALYSIS SUMMARY
BASED ON
METHODOLOGY DEVELOPED BY MOHLE, GROVER & ASSOCIATES
AS PART OF
THE TRAFFIC GROWTH MONITORING PROGRAM
MONITOR

INTERSECTION # 88 - WASHINGTON STRE @ RIVERSIDE AVENU   C.E. UPDATE   YEAR 2010 CIRCULATION PLAN   PM .Peak Period 07/29/92

	APPROACH (DIR)	LINK (#)	SAT FLOW (VPH)	SPEED (MPH)	VOL(V) (VPH)	CAP(C) (VPH)	V/C (X-%)	PAF	STOP DELAY (SEC/VEH)	LOS	QUEUE (VEH/LN)	MOVE TIME (SEC)	EFF GRN (SEC)	LOCAL OFFSET (SEC)	PHASING SEQUENCE	LINK (#)	APPROACH (DIR)	
	SBT	8820	3600	35	1791	2852	63	1.0	4.6	A	13	105	103	25	-23---	8820	SBT	
*	SBL	8821	1700	35	233	235	99**	1.0	86.3	F	8	20	18	25	-2----	8821	SBL	*
*	WBL	8831	1895	35	326	335	97**	1.0	72.7	F	12	25	23	0	1-----	8831	WBL	*
	WBR	8832	1605	35	276	284	97**	1.0	75.7	F	10	25	23	0	1-----	8832	WBR	
*	NBT	8840	3600	35	1777	1822	98**	1.0	28.2	D+	38	85	83	45	--3---	8840	NBT	*
	NBR	8842	-	-	465	477	98**	1.0	28.2	D+	-	85	83	45	--3---	8842	NBR	

INTERSECTION SUMMARY : TOTAL FLOW = 4868   WEIGHTED AVERAGE DELAY = 28.0   DELAY LOS = D+   CYCLE = 130
* CRITICAL MOVEMENT SUMMARY : ICU = .98/E   WEIGHTED AVERAGE DELAY = 38.2   DELAY LOS = D-   SYSTEM (BG) OFFSET = 126

Appendix G: Year 2010 Arterial LOS

Arterial Capacity Analysis Methodology

GENERALIZED PEAK HOUR/PEAK DIRECTION LEVEL OF SERVICE MAXIMUM VOLUMES FOR FLORIDA'S URBAN/URBANIZED (5,000+) AREAS

TWO-WAY ARTERIALS

CLASS I

Group A (0.0 to 0.75 signalized intersections per mile)

Lanes/Divided	A	B	C	D	E
2 Undiv.	740	810	840	880	940
4 Div.	1,620	1,730	1,790	1,890	1,990
6 Div.	2,460	2,610	2,690	2,840	2,990

Group B (0.76 to 1.5 signalized intersections per mile)

Lanes/Divided	A	B	C	D	E
2 Undiv.	490	740	790	830	870
4 Div.	1,080	1,610	1,680	1,760	1,850
6 Div.	1,650	2,450	2,530	2,650	2,770

Group C (1.6 to 2.5 signalized intersections per mile)

Lanes/Divided	A**	B	C	D	E
2 Undiv.	—	550	730	800	860
4 Div.	—	1,240	1,600	1,720	1,810
6 Div.	—	1,910	2,440	2,600	2,730

Group D (2.6 to 3.5 signalized intersections per mile)

Lanes/Divided	A**	B**	C	D	E
2 Undiv.	—	—	500	740	830
4 Div.	—	—	1,090	1,640	1,800
6 Div.	—	—	1,680	2,510	2,720

Group E (3.6 to 4.5 signalized intersections per mile)

Lanes/Divided	A**	B**	C**	D	E
2 Undiv.	—	—	—	670	790
4 Div.	—	—	—	1,430	1,740
6 Div.	—	—	—	2,140	2,650

CLASS II

Group F (more than 4.5 signalized intersections per mile and not within primary city central business district of urbanized area over 500,000)

Lanes/Divided	A**	B**	C**	D	E
2 Undiv.	—	—	—	560	790
4 Div.	—	—	—	1,230	1,740
6 Div.	—	—	—	1,890	2,680

CLASS III

Group G (more than 4.5 signalized intersections per mile and within primary city central business district of urbanized area over 500,000)

Lanes/Divided	A**	B**	C**	D	E
2 Undiv.	—	—	—	710	840
4 Div.	—	—	—	1,590	1,830
6 Div.	—	—	—	2,450	2,780

DIVIDED/UNDIVIDED ADJUSTMENTS

(alter corresponding two-way arterial volumes indicated percent)

Lanes	Median	Left Turn Bays	Adjustment Factor
2	Divided	Yes	+ 5%
2	Undivided	No	- 15%
Multi	Undivided	Yes	- 5%
Multi	Undivided	No	- 20%

FREEWAYS

Group 1 (within urbanized area over 500,000 and leading to or within 5 miles of primary city central business district)

Lanes	A	B	C	D	E
4	1,400	2,150	3,070	3,710	3,990
6	2,090	3,230	4,610	5,570	5,990
8	2,790	4,310	6,140	7,420	7,980
10	3,490	5,390	7,680	9,280	9,980

Group 2 (within urbanized area over 50,000 and not in Group 1)

Lanes	A	B	C	D	E
4	1,330	2,050	2,930	3,530	3,800
6	2,000	3,080	4,390	5,300	5,700
8	2,660	4,100	5,850	7,070	7,600
10	3,330	5,130	7,320	8,840	9,500

Group 3 (within non-urbanized areas)

Lanes	A	B	C	D	E
4	1,260	1,950	2,780	3,360	3,610
6	1,900	2,920	4,170	5,040	5,420
8	2,530	3,900	5,560	6,710	7,220

ONE-WAY ARTERIALS

CLASS I

Group D (less than 3.6 signalized intersections per mile)

Lanes	A**	B	C	D	E
2	—	1,080	1,600	1,830	1,960
3	—	1,610	2,450	2,770	2,940
4	—	2,150	3,220	3,710	3,930

Group E (3.6 to 4.5 signalized intersections per mile)

Lanes	A**	B**	C	D	E
2	—	—	1,440	1,750	1,900
3	—	—	2,190	2,670	2,870
4	—	—	2,920	3,600	3,850

CLASS II

Group F (more than 4.5 signalized intersections per mile and not within primary city central business district of urbanized area over 500,000)

Lanes	A**	B**	C	D	E
2	—	—	1,180	1,680	1,910
3	—	—	1,790	2,590	2,890
4	—	—	2,410	3,500	3,870

CLASS III

Group G (more than 4.5 signalized intersections per mile and within primary city central business district of urbanized area over 500,000)

Lanes	A**	B**	C	D	E
2	—	—	1,440	1,880	1,980
3	—	—	2,210	2,830	2,990
4	—	—	2,960	3,800	4,000

TWO-WAY COLLECTORS AND LOCAL STREETS

(signalized intersection analysis)

Lanes	A**	B**	C	D	E
2	—	—	410	650	700
4	—	—	880	1,320	1,430
6	—	—	1,350	2,020	2,170

* The table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Values shown are average daily traffic maximum volumes (based on peak hour volumes) for levels of service and are based on the 1985 Highway Capacity Manual and Florida traffic data. Roadways with more than the number of lanes shown should be treated on a case by case basis. The table's input value assumptions and level of service criteria appear on the back.

** Cannot be achieved.

Source: Florida Department of Transportation, 1988.

Without Project

CITY OF COLTON CIRCULATION ELEMENT UPDATE
2010 LINK APPROACH LEVEL OF SERVICE
PEAK HOUR + PEAK DIRECTION FLOW
WITHOUT PROJECT

EAST-WEST LINKS

LINK	FUTURE ROW WIDTH (feet)	DISTANCE	NUMBER OF SIGNALS	SIGNALS PER MILE	NUMBER OF LANES	D/U	ADJ. FACTOR	AM PK. VOLUME	PM PK. VOLUME	AM PEAK HOUR VOLUME	AM PEAK HOUR LOS	PM PEAK HOUR VOLUME	PM PEAK HOUR LOS
RANDALL AVENUE (CITY LIMIT - PEPPER)	64	.38	1	2.63	2	U	-.15	142	179	120	A	152	A
SAN BERNARDINO AVENUE (CITY LIMIT - PEPPER)	88	.75	1	1.33	2	U	-.15	557	672	473	A	571	B
OLIVE STREET (PEPPER - RANCHO)	64	1	1	1	2	U	-.15	593	680	504	B	578	B
VALLEY BOULEVARD (CITY LIMIT - PEPPER)	96	.89	2	2.25	4	LTL	-.05	739	1455	702	A	1382	C
VALLEY BOULEVARD (PEPPER - RANCHO)	96	1	2	2	4	U	-.2	1204	1456	963	A	1164	B
SLOVER AVENUE (CITY LIMIT - PEPPER)	64	.75	0	0	2	U	-.15	445	607	378	A	515	A
AGUA MANSA ROAD (CITY LIMIT - RANCHO)	64	3.07	0	0	2	U	-.15	409	661	347	A	561	A
MILL AVENUE (CITY LIMIT - RANCHO)	96	.45	1	2.22	2	LTL	.05	515	832	540	B	873	F
MILL AVENUE (RANCHO - MT. VERNON)	88	1.13	1	.885	2	U	-.15	665	1092	565	B	928	F
LAUREL STREET (RANCHO - MT. VERNON)	64	1.18	4	3.39	2	U	-.15	161	204	136	A	173	A
OLIVE STREET (RANCHO - LA CADENA)	64	.73	2	2.74	2	U	-.15	299	323	254	A	274	A
"C" STREET (MERIDIAN - RANCHO)	64	.77	1	1.30	2	U	-.15	253	384	215	A	326	A
"C" STREET (RANCHO - PENNSYLVANIA)	64	.44	1	2.27	2	U	-.15	270	368	229	A	312	A
"C" STREET (PENNSYLVANIA - LA CADENA)	64	.27	1	3.70	4	D	-.2	443	585	354	A	468	A
"C" STREET (LA CADENA - MT. VERNON)	64	.52	1	1.92	2	U	-.15	179	219	152	A	186	A
"E" STREET (RANCHO - LA CADENA)	64	.68	2	2.94	2	U	-.15	439	509	373	B	432	C
"E" STREET (LA CADENA - MT. VERNON)	64	.55	2	3.64	2	U	-.15	38	90	32	A	76	A
"H" STREET (RANCHO - LA CADENA)	64	.45	2	4.44	2	U	-.15	258	509	219	A	432	B
"H" STREET (LA CADENA - MT. VERNON)	64	.59	3	5.08	2	U	-.15	166	523	141	A	444	B
VALLEY BOULEVARD (RANCHO - LA CADENA)	96	.66	2	3.03	4	LTL	-.05	935	1287	888	C	1222	D

CITY OF COLTON CIRCULATION ELEMENT UPDATE
2010 LINK APPROACH LEVEL OF SERVICE
PEAK HOUR + PEAK DIRECTION FLOW
WITHOUT PROJECT

NORTH-SOUTH LINKS

LINK	FUTURE ROW WIDTH (feet)	DISTANCE	NUMBER OF SIGNALS	SIGNALS PER MILE	NUMBER OF LANES	D/U	ADJ. FACTOR	AM PK. VOLUME	PM PK. VOLUME	AM PEAK HOUR VOLUME	AM PEAK HOUR LOS	PM PEAK HOUR VOLUME	PM PEAK HOUR LOS
LA CADENA AVENUE (S.A. RIVER - BARTON)	96	.77	1	1.30	4	D	-.2	1349	1644	1079	A	1315	B
LA CADENA AVENUE (BARTON - I215)	88	.66	2	3.03	4	D	-.2	1006	1401	804	A	1120	D
MT. VERNON AVENUE (VALLEY - I10 E/B)	88	.21	1	4.76	4	D	-.2	1068	1498	854	A	1198	D
MT. VERNON AVENUE (I10 E/B - COOLEY)	88	.63	1	1.59	2	U	-.15	1036	1423	880	F	1209	F
MT. VERNON AVENUE (COOLEY - WASHINGTON)	114	.55	4	7.27	6	D	-.2	1125	1398	900	A	1118	A
MT. VERNON AVENUE (WASHINGTON - I215 OFF RAMP)	88	.15	1	6.67	4	U	-.05	1160	1088	1102	D	1033	D
MT. VERNON AVENUE (I215 OFF RAMP - CITY LIMIT)	64	.65	1	1.54	2	U	-.15	807	711	685	B	604	B
HUNTS LANE (CITY LIMIT - CAROLINE)	88	.28	1	3.57	4	U	-.2	760	1104	608	A	883	A
HUNTS LANE (CAROLINE - BARTON)	88	.71	2	2.82	2	U	-.15	796	1207	676	D	1025	F
RECHE CANYON ROAD (BARTON - CITY LIMIT)	88	2.54	1	.394	2	U	-.15	976	1366	829	C	1161	F
RIVERSIDE AVENUE (NCL - SCL)	88	1.61	2	1.24	4	U	-.05	1488	1832	1413	B	1740	D
INTERSTATE 215 (LA CADENA - BARTON)	N/A	.89	N/A	0	6		0	6235	9015	6235	F	9015	
INTERSTATE 215 (BARTON - WASHINGTON)	N/A	1.38	N/A	0	6		0	7175	10488	7175	F	10488	F
INTERSTATE 215 (WASHINGTON - I10)	N/A	1.39	N/A	0	6		0	5860	8846	5860	E	8846	F
INTERSTATE 215 (I10 - ORANGE SHOW)	N/A	.95	N/A	0	8 + 2 HOV		0	5899	9331	5899	C	9331	F

Methodol[illegible] per Florida Highway System Plan, Level of Service Procedures and G[illegible]lines Manual, 1988.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
2010 LINK APPROACH LEVEL OF SERVICE
PEAK HOUR + PEAK DIRECTION FLOW
WITHOUT PROJECT

NORTH-SOUTH LINKS

LINK	FUTURE ROW WIDTH (feet)	DISTANCE	NUMBER OF SIGNALS	SIGNALS PER MILE	NUMBER OF LANES	D/U	ADJ. FACTOR	AM PK. VOLUME	PM PK. VOLUME	AM PEAK HOUR VOLUME	AM PEAK HOUR LOS	PM PEAK HOUR VOLUME	PM PEAK HOUR LOS
PEPPER AVENUE (I10 - SLOVER)	88	.39	1	2.56	2	U	-.15	1031	1143	876	F	971	F
PEPPER AVENUE (I10 - OLIVE)	114	.61	3	4.92	2	U	-.15	1275	1543	1083	F	1311	F
PEPPER AVENUE (OLIVE - RANDALL)	88	.5	1	2	2	U	-.15	1132	1392	962	F	1183	
MERIDIAN AVENUE (VALLEY - RANDALL)	64	1.05	1	.952	2	U	-.15	374	323	317	A	274	A
RANCHO AVENUE (MILL - OLIVE)	88	1	5	5	4	U	-.2	1064	1427	851	A	1141	B
RANCHO AVENUE (OLIVE - I10)	88	.625	4	6.4	4	U	-.2	1258	1768	1006	D	1414	D
PENNSYLVANIA AVENUE (MILL - OLIVE)	64	1	5	5	2	U	-.15	313	409	266	A	347	A
PENNSYLVANIA AVENUE (OLIVE - VALLEY)	64	.73	4	5.48	2	U	-.15	381	419	323	A	356	A
LA CADENA AVENUE (MT. VERNON - OAK)	96	.8	2	2.5	4	D	-.2	417	671	333	A	536	A
LA CADENA AVENUE (OAK - VALLEY)	88	.69	6	8.70	2	LTL	.05	567	1149	595	D	1206	F
COLTON AVENUE (MT. VERNON - NCL)	64	.57	1	1.75	2	U	-.15	456	552	387	B	469	B
COLTON AVENUE (MT. VERNON - 10TH)	64	.54	1	1.85	2	U	-.15	220	389	187	A	330	A
MT. VERNON AVENUE (LA CADENA - COLTON)	88	.75	4	5.33	4	LTL	-.05	749	1146	711	A	1088	D
MT. VERNON AVENUE (COLTON - VALLEY)	88	.57	5	8.77	4	LTL	-.05	1015	1384	964	C	1314	D
SPERRY DRIVE (I10 OFF RAMP- FAIRWAY)	64	.2	1	5	2	U	-.15	319	456	271	A	387	A
RANCHO AVENUE (I10 - "H" ST)	88	.28	1	3.57	4	U	-.2	1204	1556	963	D	1244	D
RANCHO AVENUE ("H" ST - LA CADENA)	88	1.04	2	1.92	4	U	-.15	820	966	697	A	821	A
LA CADENA AVENUE (I10 - 7TH)	88	.52	4	7.69	4	U	-.2	1043	1232	834	A	985	A
LA CADENA AVENUE (7TH - RANCHO)	88	.62	1	1.61	2	U	-.15	962	648	817	E	550	b
LA CADENA AVENUE (RANCHO - S.A. RIVER)	96	.35	1	2.86	2	U	-.15	1360	1308	1156	F	1111	F

CITY OF COLTON CIRCULATION ELEMENT UPDATE
2010 LINK APPROACH LEVEL OF SERVICE
PEAK HOUR + PEAK DIRECTION FLOW
WITHOUT PROJECT

EAST-WEST LINKS

LINK	FUTURE ROW WIDTH (feet)	DISTANCE	NUMBER OF SIGNALS	SIGNALS PER MILE	NUMBER OF LANES	D/U	ADJ. FACTOR	AM PK. VOLUME	PM PK. VOLUME	AM PEAK HOUR VOLUME	AM PEAK HOUR LOS	PM PEAK HOUR VOLUME	PM PEAK HOUR LOS
VALLEY BOULEVARD (LA CADENA - MT. VERNON)	96	.61	3	4.92	4	LTL	-.05	1017	1522	966	C	1445	D
FAIRWAY STREET (MT. VERNON - SPERRY)	88	.23	1	4.35	2	U	-.15	366	544	311	A	462	D
FAIRWAY STREET (SPERRY - AUTO PLAZA)	88	.57	1	1.75	2	U	-.15	566	840	481	B	714	C
"M" STREET (LA CADENA - MT. VERNON)	64	.79	2	2.53	2	U	-.15	152	208	129	A	176	A
BARTON ROAD (LA CADENA - CITY LIMIT)	88	.46	1	2.17	2	U	-.15	683	805	580	C	684	C
BARTON ROAD (CITY LIMIT - WASHINGTON)	88	.89	1	1.12	2	U	-.15	745	888	633	B	754	C
COOLEY DRIVE (MT. VERNON - COOLEY LN.)	114	1.56	1	.641	2	D	.05	393	332	412	A	348	A
COOLEY DRIVE (COOLEY LN. - WASHINGTON)	114	.49	1	2.04	2	U	-.15	349	348	296	A	295	A
SANTO ANTONIO DRIVE (WASHINGTON - MT. VERNON)	88	.48	1	2.08	2	U	-.15	241	284	204	A	241	A
SANTO ANTONIO DRIVE (MT. VERNON - CENTREPOINTE)	72	.23	1	4.35	2	U	-.15	84	148	71	A	125	A
CENTREPOINTE DRIVE (MT. VERNON - SANTO ANTONIO)	64	.21	1	4.76	2	U	-.15	86	153	73	A	130	A
WASHINGTON STREET (I215 OVERPASS)	96	.14	1	7.14	4	U	-.2	1277	2089	1021	D	1671	E
WASHINGTON STREET (I215 - BARTON)	88	.82	4	4.88	4	LTL	-.05	1378	2257	1309	D	2144	F
WASHINGTON STREET (BARTON - RECHE CYN)	114	.18	2	11.1	4	D	-.2	1670	2990	1336	D	2392	F
WASHINGTON STREET (RECHE CYN - WATERMAN)	114	.64	3	4.69	4	D	-.2	1861	3161	1488	D	2528	F
INTERSTATE 10 (CITY LIMIT - PEPPER)	N/A	.73	N/A	0	8 + 2 HOV		0	6772	7216	6772	D	7216	[illegible]
INTERSTATE 10 (PEPPER - RANCHO)	N/A	1	N/A	0	8 + 2 HOV		0	6786	7686	6786	D	7686	E
INTERSTATE 10 (RANCHO - NINTH)	N/A	.77	N/A	0	8 + 2 HOV		0	6576	7620	6576	D	7620	E
INTERSTATE 10 (NINTH - MT. VERNON)	N/A	.54	N/A	0	8 + 2 HOV		0	6313	8195	6313	D	8195	F
INTERSTATE 10 (MT. VERNON - I215)	N/A	1	N/A	0	8 + 2 HOV		0	6227	8174	6227	D	8174	F
INTERSTATE 10 (I215 - WATERMAN)	N/A	1	N/A	0	8 + 2 HOV		0	8122	12475	8122	F	12475	F

Methodology per Florida Highway System Plan, Level of Service Procedures and Guidelines Manual, 1988.

With Project

CITY OF COLTON CIRCULATION ELEMENT UPDATE
2010 LINK APPROACH LEVEL OF SERVICE
PEAK HOUR + PEAK DIRECTION FLOW
RECOMMENDED CIRCULATION PLAN

NORTH-SOUTH LINKS

LINK	FUTURE ROW WIDTH (feet)	DISTANCE	NUMBER OF SIGNALS	SIGNALS PER MILE	NUMBER OF LANES	D/U	ADJ. FACTOR	AM PK. VOLUME	PM PK. VOLUME	AM PEAK HOUR VOLUME	AM PEAK HOUR LOS	PM PEAK HOUR VOLUME	PM PEAK HOUR LOS
PEPPER AVENUE * (I10 - SANTA ANA)	88	.39	1	2.56	4	LTL	-.05	1103	1180	1047	C	1121	D
PEPPER AVENUE (I10 - OLIVE)	114	.61	3	4.92	6	LTL	-.05	2339	2210	2222	E	2099	E
PEPPER AVENUE (OLIVE - RANDALL)	88	.5	1	2	4	LTL	-.05	1617	1593	1536	C	1513	C
MERIDIAN AVENUE (VALLEY - NCL)	64	1.05	2	1.90	2	U	.05	409	522	429	B	548	B
RANCHO AVENUE (MILL - "H" ST)	88	1.25	6	4.8	4	LTL	-.05	1568	1809	1489	D	1718	E
RANCHO AVENUE ("H" ST - "K" ST)	88	.375	3	8	6	LTL	-.05	1945	2862	1847	C	2718	E
PENNSYLVANIA AVENUE (MILL - OLIVE)	64	1	5	5	2	U	-.15	394	574	334	B	487	[illegible]
PENNSYLVANIA AVENUE (OLIVE - VALLEY)	64	.73	4	5.48	2	U	-.15	414	457	351	B	388	B
LA CADENA AVENUE (MT. VERNON - OAK)	96	.8	2	2.5	4	LTL	-.05	671	1116	637	A	1060	B
LA CADENA AVENUE (OAK - VALLEY)	88	.69	6	8.70	4	LTL	-.05	840	1280	798	B	1216	C
COLTON AVENUE (MT. VERNON - NCL)	64	.57	1	1.75	2	U	-.15	398	519	338	B	441	B
COLTON AVENUE (MT. VERNON - 10TH)	64	.54	4	7.41	2	U	-.15	194	359	164	A	305	A
MT. VERNON AVENUE (LA CADENA - COLTON)	88	.75	4	5.33	4	LTL	-.05	801	1191	760	A	1131	C
MT. VERNON AVENUE (COLTON - VALLEY)	88	.57	4	7.02	4	LTL	-.05	1144	1441	1086	B	1368	D
SPERRY DRIVE (I10 OFF RAMP- FAIRWAY)	64	.2	2	10	2	U	.05	607	679	637	E	712	E
RANCHO AVENUE ("K" ST - LA CADENA)	88	1.04	3	2.88	4	LTL	-.05	1069	978	1015	C	929	C
LA CADENA AVENUE (I10 - 7TH)	88	.52	4	7.69	4	LTL	-.05	1201	1496	1140	D	1421	E
LA CADENA AVENUE (7TH - RANCHO)	88	.62	2	3.23	4	LTL	-.05	1161	1173	1102	D	1114	D

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CITY OF COLTON CIRCULATION ELEMENT UPDATE
2010 LINK APPROACH LEVEL OF SERVICE
PEAK HOUR + PEAK DIRECTION FLOW
RECOMMENDED CIRCULATION PLAN

NORTH-SOUTH LINKS

LINK	FUTURE ROW WIDTH (feet)	DISTANCE	NUMBER OF SIGNALS	SIGNALS PER MILE	NUMBER OF LANES	D/U	ADJ. FACTOR	AM PK. VOLUME	PM PK. VOLUME	AM PEAK HOUR VOLUME	AM PEAK HOUR LOS	PM PEAK HOUR VOLUME	PM PEAK HOUR LOS
LA CADENA AVENUE (RANCHO - WASHINGTON)	96	.35	0	0	4	LTL	-.05	1754	1917	1666	B	1821	D
LA CADENA AVENUE (WASHINGTON - BARTON)	96	.77	1	1.30	4	D	-.05	1643	1728	1560	B	1641	C
LA CADENA AVENUE (BARTON - I215)	88	.66	2	3.03	4	D	-.05	1591	1811	1511	D	1720	E
MT. VERNON AVENUE (VALLEY - I10 E/B)	88	.21	1	4.76	4	U	-.05	1233	1709	1171	D	1623	E
MT. VERNON AVENUE (I10 E/B - COOLEY)	88	.63	1	1.59	4	U	-.05	1220	1858	1159	B	1765	E
MT. VERNON AVENUE (COOLEY - WASHINGTON)	114	.55	4	7.27	6	D	-.05	1183	1538	1123	D	1461	D
MT. VERNON AVENUE (WASHINGTON - I215 OFF RAMP)	88	.15	1	6.67	4	U	-.05	1196	1248	1136	D	1185	D
MT. VERNON AVENUE (I215 OFF RAMP - CITY LIMIT)	64	.65	1	1.54	2	U	-.15	1020	721	867	E	612	C
HUNTS LANE (CITY LIMIT - CAROLINE)	88	.28	2	7.14	4	U	-.05	1331	1529	1264	E	1452	E
HUNTS LANE (CAROLINE - BARTON)	88	.71	2	2.82	4	U	-.05	1444	1677	1371	D	1593	D
RECHE CANYON ROAD (BARTON - CITY LIMIT)	88	2.54	1	.394	4	U	-.05	1510	1632	1434	A	1550	A
RIVERSIDE AVENUE (NCL - SCL)	88	1.61	2	1.24	4	U	-.05	1372	1639	1303	B	1557	B
INTERSTATE 215 (LA CADENA - BARTON)	N/A	.89	N/A	0	6 + 2 HOV	D	0	5553	5998	5553	E	5998	F
INTERSTATE 215 (BARTON - WASHINGTON)	N/A	1.38	N/A	0	6 + 2 HOV	D	0	5953	6436	5953	E	6436	F
INTERSTATE 215 (WASHINGTON - I10)	N/A	1.39	N/A	0	6 + 2 HOV	D	0	5168	5783	5168	D	5783	E
INTERSTATE 215 (I10 - ORANGE SHOW)	N/A	.95	N/A	0	8 + 2 HOV	D	0	5773	7030	5773	C	7030	D

* - Indicates partial street extension.
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Methodology per Florida Highway System Plan, Level of Service Procedures and Guidelines Manual, 1988.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
2010 LINK APPROACH LEVEL OF SERVICE
PEAK HOUR + PEAK DIRECTION FLOW
RECOMMENDED CIRCULATION PLAN

EAST-WEST LINKS

LINK	FUTURE ROW WIDTH (feet)	DISTANCE	NUMBER OF SIGNALS	SIGNALS PER MILE	NUMBER OF LANES	D/U	ADJ. FACTOR	AM PK. VOLUME	PM PK. VOLUME	AM PEAK HOUR VOLUME	AM PEAK HOUR LOS	PM PEAK HOUR VOLUME	PM PEAK HOUR LOS
RANDALL AVENUE * (CITY LIMIT - MERIDIAN)	64	.38	1	2.63	2	U	-.15	132	240	112	B	204	B
SAN BERNARDINO AVENUE (CITY LIMIT - PEPPER)	88	.75	1	1.33	4	LTL	-.05	780	867	741	A	823	A
OLIVE STREET (PEPPER - RANCHO)	64	1	1	1	2	U	-.15	674	595	572	B	505	B
VALLEY BOULEVARD (CITY LIMIT - PEPPER)	96	.89	2	2.25	4	LTL	-.05	920	1429	874	A	1357	C
VALLEY BOULEVARD (PEPPER - RANCHO)	96	1	2	2	4	LTL	-.05	1399	1709	1329	C	1623	D
SLOVER AVENUE (CITY LIMIT - PEPPER)	64	.75	1	1.33	2	U	-.15	525	661	446	A	561	B
SANTA ANA AVENUE * (CITY LIMIT - PEPPER)	64	.43	1	2.33	2	U	-.15	358	394	304	A	334	A
AGUA MANSA ROAD (CITY LIMIT - RANCHO)	64	3.07	2	.651	2	U	-.15	220	429	187	A	364	A
MILL AVENUE (CITY LIMIT - RANCHO)	96	.45	1	2.22	4	LTL	-.05	803	1196	762	A	1136	B
MILL AVENUE (RANCHO - MT. VERNON)	88	1.13	1	.885	4	LTL	-.05	1031	1447	979	A	1374	B
LAUREL STREET (RANCHO - MT. VERNON)	64	1.18	4	3.39	2	U	-.15	172	208	146	B	176	B
OLIVE STREET (RANCHO - LA CADENA)	64	.73	2	2.74	2	U	-.15	305	345	259	C	293	C
"C" STREET (MERIDIAN - RANCHO)	64	.77	1	1.30	2	U	-.15	248	398	210	A	338	A
"C" STREET (RANCHO - PENNSYLVANIA)	64	.44	1	2.27	2	U	-.15	300	395	255	A	335	B
"C" STREET (PENNSYLVANIA - LA CADENA)	64	.27	1	3.70	4	D	-.2	466	534	372	A	427	A
"C" STREET (LA CADENA - MT. VERNON)	64	.52	1	1.92	2	U	-.15	235	252	199	A	214	A
"E" STREET (RANCHO - LA CADENA)	64	.68	2	2.94	2	U	-.15	483	577	410	C	490	C
"E" STREET (LA CADENA - MT. VERNON)	64	.55	2	3.64	2	U	-.15	59	74	50	A	62	A

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CITY OF COLTON CIRCULATION ELEMENT UPDATE
2010 LINK APPROACH LEVEL OF SERVICE
PEAK HOUR + PEAK DIRECTION FLOW
RECOMMENDED CIRCULATION PLAN

EAST-WEST LINKS

LINK	FUTURE ROW WIDTH (feet)	DISTANCE	NUMBER OF SIGNALS	SIGNALS PER MILE	NUMBER OF LANES	D/U	ADJ. FACTOR	AM PK. VOLUME	PM PK. VOLUME	AM PEAK HOUR VOLUME	AM PEAK HOUR LOS	PM PEAK HOUR VOLUME	PM PEAK HOUR LOS
"H" STREET (RANCHO - LA CADENA)	64	.45	2	4.44	2	U	-.15	269	613	228	A	521	C
"H" STREET (LA CADENA - MT. VERNON)	64	.59	3	5.08	2	U	-.15	207	548	175	A	465	C
VALLEY BOULEVARD (RANCHO - LA CADENA)	96	.66	2	3.03	4	LTL	-.05	1053	1344	1000	C	1276	D
VALLEY BOULEVARD (LA CADENA - MT. VERNON)	96	.61	3	4.92	4	LTL	-.05	985	1355	935	B	1287	C
FAIRWAY STREET (MT. VERNON - SPERRY)	88	.23	1	4.35	4	LTL	-.05	548	962	520	B	913	C
FAIRWAY STREET (SPERRY - AUTO PLAZA)	88	.57	1	1.75	4	LTL	-.05	1051	1235	998	B	1173	B
"M" STREET (LA CADENA - MT. VERNON)	64	.79	2	2.53	2	U	-.15	165	234	140	A	198	A
FOGG STREET * (LA CADENA - "M" ST.)	64	1.16	2	1.72	2	U	-.15	166	331	141	A	281	A
BARTON ROAD (LA CADENA - CITY LIMIT)	88	.46	1	2.17	4	LTL	-.05	964	814	915	B	773	A
BARTON ROAD (CITY LIMIT - WASHINGTON)	88	.89	1	1.12	4	U	-.05	704	1287	668	A	1222	B
COOLEY DRIVE (MT. VERNON - COOLEY LN.)	114	1.56	1	.641	6	LTL	.05	514	402	539	A	422	A
COOLEY DRIVE (COOLEY LN. - WASHINGTON)	114	.49	1	2.04	6	LTL	.05	241	595	253	A	624	A
SANTO ANTONIO DRIVE (WASHINGTON - MT. VERNON)	88	.48	1	2.08	4	U	.05	278	426	291	A	447	A
SANTO ANTONIO DRIVE (MT. VERNON - CENTREPOINTE)	72	.23	1	4.35	2	U	.05	129	171	135	A	179	A
CENTREPOINTE DRIVE (MT. VERNON - SANTO ANTONIO)	64	.21	1	4.76	2	U	.05	80	141	84	A	148	A
WASHINGTON STREET (I215 OVERPASS)	96	.14	1	7.14	6	LTL	-.05	1697	2503	1612	D	2377	E
WASHINGTON STREET (I215 - BARTON)	88	.82	4	4.88	6	LTL	-.05	1886	2478	1791	D	2354	E
WASHINGTON STREET (BARTON - RECHE CYN)	114	.18	2	11.1	6	D	-.05	2057	2773	1954	E	2634	E

* - Indicates partial street extension.
** - Indicates full street extension.

Metho[illegible]gy per Florida Highway System Plan, Level of Service Procedures anc[illegible]delines Manual, 1988.

CITY OF COLTON CIRCULATION ELEMENT UPDATE
2010 LINK APPROACH LEVEL OF SERVICE
PEAK HOUR + PEAK DIRECTION FLOW
RECOMMENDED CIRCULATION PLAN

EAST-WEST LINKS

LINK	FUTURE ROW WIDTH (feet)	DISTANCE	NUMBER OF SIGNALS	SIGNALS PER MILE	NUMBER OF LANES	D/U	ADJ. FACTOR	AM PK. VOLUME	PM PK. VOLUME	AM PEAK HOUR VOLUME	AM PEAK HOUR LOS	PM PEAK HOUR VOLUME	PM PEAK HOUR LOS
WASHINGTON STREET (RECHE CYN - WATERMAN)	114	.64	3	4.69	6	D	-.05	1901	2397	1805	D	2277	E
WASHINGTON STREET ** (LA CADENA - BARTON)	88	1.93	2	1.04	4	U	-.05	256	451	243	A	428	A
WASHINGTON STREET ** (RIVERSIDE - BARTON)	88	.71	1	1.41	4	U	-.05	408	698	387	A	663	A
WASHINGTON STREET * (LA CADENA - MT. VERNON)	88	1.39	2	1.44	4	U	-.05	1044	1209	991	A	1148	B
BARTON ROAD ** (WASHINGTON - LA CADENA)	64	2.29	2	.873	2	U	.05	543	549	570	B	576	[illegible]
INTERSTATE 10 (CITY LIMIT - PEPPER)	N/A	.73	N/A	0	8 + 2 HOV		0	6561	7313	6561	D	7313	D
INTERSTATE 10 (PEPPER - RANCHO)	N/A	1	N/A	0	8 + 2 HOV		0	6825	7799	6825	D	7799	E
INTERSTATE 10 (RANCHO - NINTH)	N/A	.77	N/A	0	8 + 2 HOV		0	6427	6843	6427	D	6843	D
INTERSTATE 10 (NINTH - MT. VERNON)	N/A	.54	N/A	0	8 + 2 HOV		0	6158	6805	6158	D	6805	D
INTERSTATE 10 (MT. VERNON - I215)	N/A	1	N/A	0	8 + 2 HOV		0	6138	7437	6138	C	7437	E
INTERSTATE 10 (I215 - WATERMAN)	N/A	1	N/A	0	8 + 2 HOV		0	7811	10159	7811	E	10159	F

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Methodology per Florida Highway System Plan, Level of Service Procedures and Guidelines Manual, 1988.

Appendix H: NOP and Intial Study

NOTICE OF PREPARATION

TO:	AGENCIES, ORGANIZATIONS, AND INTERESTED PERSONS
FROM:	CITY OF COLTON COMMUNITY DEVELOPMENT DEPARTMENT PLANNING DIVISION 650 North La Cadena Drive Colton, CA 92324
SUBJECT:	NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT
PROJECT TITLE:	CITY OF COLTON - CIRCULATION ELEMENT
PROJECT APPLICANT:	CITY OF COLTON
PROJECT CONSULTANT:	CHAMBERS GROUP, INC. 4324 Latham Street, Suite 140 Riverside, CA 92501 (714) 276-8344

The City of Colton will be the Lead Agency in the preparation of an Environmental Impact Report for the project identified herein. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approvals for the project.

The project description, location, and the probable environmental effects are contained in the attached Initial Study.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice by your agency. Please send your response to Mr. Hani Gabriel, Principal Planner, at the address shown above for the City of Colton. Please indicate a contact person, including a address and phone number where the contact person can be reached, in your response. If you require additional information, please call Mr. Gabriel at (714) 370-5079.

Mr. Jaime Aguilera
Community Development Director
City of Colton

6/17/92
Date

INITIAL ENVIRONMENTAL STUDY
FOR
CITY OF COLTON GENERAL PLAN - CIRCULATION ELEMENT UPDATE

Project Applicant/Lead Agency

City of Colton
Community Development Department

Prepared by:

Chambers Group, Inc.

JUNE 1992

INITIAL ENVIRONMENTAL STUDY

FOR

CITY OF COLTON GENERAL PLAN -

CIRCULATION ELEMENT UPDATE

Lead Agency:

CITY OF COLTON

Contact:

COMMUNITY DEVELOPMENT DEPARTMENT
659 North La Cadena Drive
Colton, California 92324
(714) 370-5079

Project Consultant:

CHAMBERS GROUP, INC.
4324 Latham Street, Suite 140
Riverside, California 92501
(714) 276-8344

JUNE 1992

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CITY OF COLTON GENERAL PLAN - CIRCULATION ELEMENT

1. EXECUTIVE SUMMARY

The environmental review of projects, such as the Colton Circulation Element, is a three step process governed by the California Environmental Quality Act (CEQA). The first step is for the lead agency, the City of Colton in this case, is to determine whether a project is exempt from CEQA review. The City of Colton has determined that this is not the case for this project. The second step is for the lead agency to conduct an Initial Environmental Study. The purpose of this study is to help the lead agency to determine the level of environmental review that will be necessary in phase 3. If the Initial Environmental Study finds no evidence that significant impacts may occur as a result of the project (the Circulation Element), the lead agency will prepare a negative declaration stating this finding. In the case of the Colton Circulation Element, the Initial Environmental Study found evidence that significant impacts to the environment may occur, primarily in the air quality, noise and circulation resources. Therefore, the City of Colton has determined that a focused EIR shall be prepared to fully evaluate the impacts on air quality, noise, land use and circulation that may occur with the approval and implementation of the proposed Circulation Element.

Since it has been determined that an EIR will be produced, mitigations for the proposed plan have not been included with the Initial Environmental Study. A full set of mitigations, based upon the further evaluation of impacts, will be included with the EIR's Mitigation Monitoring Program.

2. INTRODUCTION

This Initial Environmental Study has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) to determine if significant environmental impacts are likely to occur from the implementation of the proposed project. The project, in terms of CEQA review, is the Circulation Element of the City of Colton's General Plan. The City of Colton will be the lead agency for assuring compliance with CEQA for the proposed project.

This Initial Environmental Study is comprised of five sections. Section 1 summarizes the findings of the Initial Environmental Study. Section 2 contains an introduction, and provides the context for the review. Section 3 provides the regional and local setting for the proposed project. Section 4 is the project description, which includes a summary of the key aspects of the Colton Circulation Element that is currently in production. The final section, Section 5, contains the completed environmental assessment form (checklist) and is followed by supplemental information about the items on the environmental assessment form.

As stated above, the City's Circulation Element is currently under development, and the following project description is based on the information available to date. It should also be

pointed out that the Circulation Element is general in nature, and will not provide the levels of detail necessary to make site and project specific environmental assessments. This Initial Study, and the EIR, represent a first tier of environmental analysis, and as such will be general in scope and will provide a discussion of broad environmental issues affecting a large physical area. Subsequent environmental review will be conducted for each site-specific project, and the level of analysis for these studies will focus on site-specific impacts.

This Initial Environmental Study covers only the Circulation Element, but builds upon the environmental work done for the General Plan EIR. As allowed by Section 15150 of the CEQA Guidelines, the Final EIR for the Colton General Plan (approved May 5, 1987) is hereby incorporated by reference into this document and the subsequent Circulation Element EIR. This document is part of the public record, and copies of this document can be viewed at the Colton Community Development Department, 659 North La Cadena Drive, Colton, California 92324, (714) 370-5079.

3. REGIONAL AND LOCAL SETTING

The City of Colton is located in western San Bernardino County, south and west of the intersection of Interstates 10 and 215, and located between the Cities of San Bernardino and Riverside. The City of Colton is bounded by the following cities:

- San Bernardino (San Bernardino County) on the north and east. San Bernardino is a city of over 100,000 persons, and impacts both local and regional traffic links in Colton.

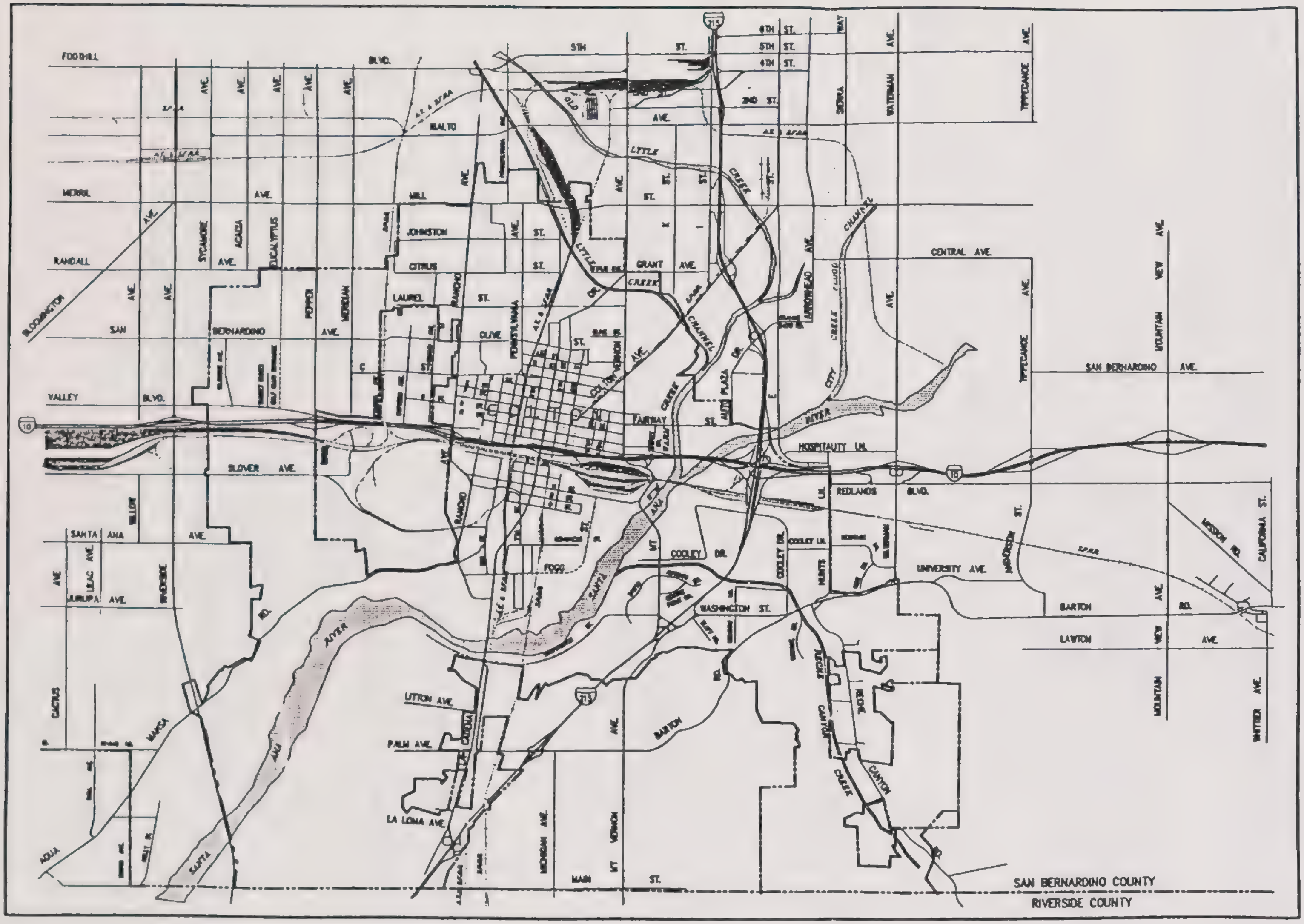
- Loma Linda (San Bernardino County) on the east. Loma Linda is a developing community that also heavily utilizes the circulation system within Colton.

- Grand Terrace (San Bernardino County) on the south. Grand Terrace is a recently incorporated city that impacts Colton's southerly local system, as well as the regional roadway system running through Colton.

- Riverside (City and County) on the south. Riverside County lands lie immediately south of Colton, with the City of Riverside located about a half mile south of Colton. The City of Riverside has a current population of over 200,000, and has a heavy impact on regional circulation on I-215.

- Rialto (San Bernardino County) located to the west. Rialto is a rapidly growing city with over 70,000 persons, and impacts both local and regional traffic links within Colton.

The City of Colton presently encompasses approximately 17.6 square miles, and is projected to continue its rapid growth over the next twenty years. Colton's current population of 42,100 is expected to grow to over 80,000 by the year 2010 (see Figure 1).



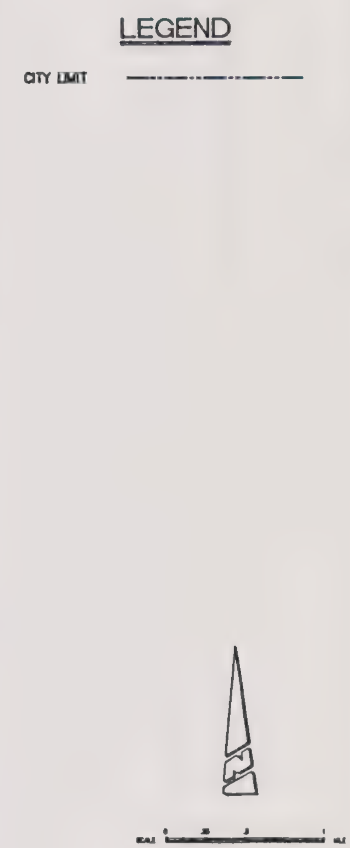


Figure 1
Local Setting

4. PROJECT DESCRIPTION

The purpose of the Colton Circulation Element, as stated within the draft element, is as follows:

> The purpose of the Circulation Plan is to provide for the safe, convenient and efficient circulation system for the City. In order to meet this objective, the Circulation Element has been designed to accommodate the anticipated transportation needs based on the estimated intensities of various land uses within the region. This element describes the extent of physical improvements needed to accommodate anticipated population growth and also introduces other techniques (e.g., restricted street parking, transportation system management plans and congestion management plans) which can be used to improve and maintain an acceptable Level of Service for the City's circulation system.
>
> The element is also intended to serve as a basic plan for other infrastructure systems such as sewer lines. As the State's General Plan Guidelines indicate, the Circulation Element is actually an infrastructure plan which "concerns itself with the circulation of people, goods, energy, water, sewage, storm drainage and communications."

In order to satisfy the purpose statement above, the Circulation Element was divided into three components:

- Goals and policies.
- Existing conditions and future standards, including required roadway and intersection improvements, and mass transit.
- Implementation program.

The infrastructural components of the Circulation Element, such as sewer, water, energy, storm drains, and communications, will reference existing, approved plans and policies. This element will not propose changes to these existing plans.

4.1 Goals and Policies

Under the goals and polices discussion, the Circulation Element contains four major goals:

- Develop a transportation system that is safe, convenient, efficient and provides adequate capacity to meet local and regional demands.
- Encourage the use of alternative transportation modes.
- Separate vehicular traffic associated with commercial, manufacturing and agricultural uses from residential neighborhoods.

- Ensure the provision of adequate off-street parking for all land uses.

4.2 Existing Conditions and Future Standards

In determining the existing conditions within the City for circulation, the Circulation Element looks at existing rights-of-way, lanes available, traffic controls, existing average daily traffic, and existing intersection peak hour levels of service.

In determining future standards, the City looked at internal growth, as projected by the Colton General Plan, as well as external circulation growth in the region. This information was used as input to the City's SCAG RIV-SAN circulation model by traffic zone. For modeling purposes, the Circulation Element uses a forecast year of 2010.

Based on the existing conditions and future demands, the Circulation Element identified three basic components. These components, and their sub-topics are:

- Roadway Component
  - Freeways and expressways
  - Primary Arterials
  - Secondary Arterials
  - Collector Streets
  - Local Streets
  - Freeway Interchanges
  - Freeway Overcrossings
  - Service Levels
  - Special Intersection Geometrics
  - Truck Routes
  - Bicycle Transportation

- Public Transportation Component
  - Rail Line/Stations
  - Bus Service

- Infrastructure Component
  - Water System
  - Sewage System
  - Storm Drain

In determining the adequacy of the existing circulation network, the updated Circulation Element proposes to utilize a Level of Service (LOS) of "E" for all signalized intersections (as defined by the 1985 Highway Capacity Manual - delay methodology). In judging intersection capacity, traffic will need to stay at or below 0.92 (Intersection Capacity Utilization). The selection of this service level for the General Plan took into account existing conditions as well as the need to provide a circulation system that can handle future growth.

Using the proposed LOS E rating, four existing intersections within the study area were found to not meet this standard. These intersections are:

- Mt. Vernon Avenue @ Washington Street (AM and PM peak hour)
- Reche Canyon Road @ Hunts Lane/Barton Road (PM peak hour only)
- Hunts Lane/Redlands Boulevard @ Steel Road (PM peak hour only)
- Waterman Avenue @ Barton Road (PM peak hour only)

4.3 Implementation Programs

Upon completion, the Circulation Element will include a set of implementation programs designed to help the City reach the goals and policies outlined in the updated element. The following items will comprise the implementation program for the updated Circulation Element:

- Master Plan of Streets (City/Regional Circulation, Transportation System Management and Transportation Demand Management)
- Public Transportation Plan (Bus service and commuter rail)
- Non-Motorized Transportation (Pedestrian and bicycle transportation)
- Parking
- Truck Routes
- Infrastructure (Water, sewage and storm drain systems)

5. ENVIRONMENTAL ASSESSMENT FORM AND SUPPLEMENTAL INFORMATION

As part of the Initial Environmental Assessment, an environmental assessment form (checklist) was completed in order to assist in the identification of environmental issues. The completed form for the updated Colton Circulation Element is included on the next three pages. Immediately following the environmental assessment form is a discussion of each item on the checklist, including a discussion of the potential for environmental impacts.

ENVIRONMENTAL ASSESSMENT FORM

PROJECT INFORMATION

Case Type and No. City of Colton General Plan Circulation Element Update

Applicant: City of Colton - Community Development Department
Address: 659 North LaCadena Drive, Colton, CA 92324
Phone Number: (714) 370-5079

Project Description: See Initial Study Section 4.

Assessors Parcel No.(s): City-wide
Environmental Setting: See Initial Study Section 3

ENVIRONMENTAL IMPACTS

	YES	MAYBE	NO	N/A
1. Earth. Will the proposal result in:				
a. Unstable earth conditions or in changes in geologic substructures?			X	
b. Disruptions, displacements, compaction or overcovering of the soil?		X		
c. Change in topography or ground surface relief features?			X	
d. The destruction, covering or modification of any unique geologic or physical features?		X		
e. Any increase in wind or water erosion of soils, either on or off the site?		X		
f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?			X	
g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?			X	
2. Air. Will the proposal result in:				
a. Substantial air emissions or deterioration of ambient air quality?	X			
b. The creation of objectionable odors?		X		
c. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?			X	
3. Water. Will the proposal result in:				
a. Changes in currents, or the course or direction of water movements, in either marine or fresh waters?			X	
b. Changes in absorption rates, drainage patterns, or the rate and amount of surface water run off?	X			
c. Alterations to the course of flow of flood waters?		X		
d. Change in the amount of surface water in any water body?			X	
e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	X			
f. Alteration of the direction or rate of flow of ground waters?			X	
g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?			X	
h. Substantial reduction in the amount of water otherwise available for public water supplies?			X	
i. Exposure of people or property to water related hazards such as flooding or tidal waves?			X	
j. Significant changes in the temperature, flow or chemical content of surface thermal springs?			X	
4. Plant Life. Will the proposal result in:				
a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, microflora and aquatic plants)?			X	
b. Reduction of the numbers of any unique, rare or endangered species of plants?		X		
c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?			X	
d. Reduction in acreage of any agricultural crop?			X	
5. Animal Life. Will the proposal result in:				
a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, or insects)?			X	
b. Reduction of the numbers of any unique, rare, or endangered species of animals?		X		
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?			X	
d. Deterioration to existing fish or wildlife habitat?		X		

	YES	MAYBE	NO	N/A
6. Noise. Will the proposal result in:				
a. Increases in existing noise levels?	X			
b. Exposure of people to severe noise levels?		X		
7. Light and Glare. Will the proposal produce new light or glare?		X		
8. Land Use. Will the proposal result in a substantial alteration of the present or planned land use of an area?		X		
9. Natural Resources. Will the proposal result in:				
a. Increase in the rate of use of any natural resources?			X	
b. Substantial depletion of any nonrenewable natural resource?			X	
10. Risk of Upset. Will the proposal involve:				
a. A risk of an explosion or the release of hazardous substances (including but not limited to oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?		X		
b. Possible interference with an emergency response plan or emergency evacuation plan?			X	
11. Population. Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?			X	
12. Housing. Will the proposal affect existing housing, or create a demand for additional housing?			X	
13. Transportation/Circulation. Will the proposal result in:				
a. Generation of substantial additional vehicular movement?	X			
b. Effects on existing parking facilities, or demand for new parking?		X		
c. Substantial impact upon existing transportation systems?	X			
d. Alterations to present patterns of circulation or movement of people and/or goods?	X			
e. Alterations to waterborne, rail or air traffic?			X	
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?			X	
14. Public Services. Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:				
a. Fire protection?			X	
b. Police protection?			X	
c. Schools?			X	
d. Parks or other recreational facilities?			X	
e. Maintenance of public facilities, including roads?	X			
f. Other governmental services?			X	
15. Energy. Will the proposal result in:				
a. Use of substantial amounts of fuel or energy?			X	
b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?			X	
16. Utilities. Will the proposal result in a need for new systems, or substantial alterations to the following utilities:				
a. Power or natural gas?		X		
b. Communications systems?		X		
c. Water?		X		
d. Sewer or septic tanks?		X		
e. Storm water drainage?		X		
f. Solid waste and disposal?			X	
17. Human Health. Will the proposal result in:				
a. Creation of any health hazard or potential health hazard (excluding mental health)?			X	
b. Exposure of people to potential health hazards?		X		
18. Aesthetics. Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?		X		
19. Recreation. Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?			X	
20. Cultural Resources.				
a. Will the proposal result in the alteration or destruction of a pre-historic or historic archeological site?		X		

		YES	MAYBE	NO	N/A
b.	Will the proposal in adverse physical or aesthetic effects to a pre-historic or historic building, structure or object?		X		
c.	Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?		X		
d.	Will the proposal restrict existing religious or sacred uses within the potential impact area?			X	
21.	<u>Mandatory Finding of Significance</u>.				
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
b.	Does the project have the potential to achieve short-term, to the disadvantage of long-term environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)			X	
c.	Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)		X		
d.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		
22.	<u>EIR Tiering Determination</u>.				
a.	Is this project consistent with a program, plan, policy or ordinance for which an EIR has been prepared and certified?	X			
b.	Is this project consistent with applicable local land use plans and zoning of the city and county in which it is located?	X			
c.	May this project cause significant effects on the environment that were not examined in the prior EIR?	X			

III. ADDITIONAL INFORMATION REQUIRED BEFORE INITIAL STUDY CAN BE COMPLETED:

on/No.	Information Required	Date Info Requested	Date Info Received	Adequacy Info Issue Determination (Yes/No, Date)

IV. DISCUSSION OF ENVIRONMENTAL IMPACTS:

Discuss all answers on checklist except those marked N/A. Identify section and number. List all relevant data sources and identify mitigation measures.

V. ENVIRONMENTAL IMPACT DETERMINATION

___ The project <u>will not</u> have a significant effect on the environment; therefore, a Negative Declaration may be prepared.

___ the Initial Study identified potentially significant effects on the environment but revisions in the project plans or proposals made by or agreed to by the applicant would avoid the effects, or mitigate the effects to a point where clearly no significant effects would occur; therefore a Negative Declaration should be adopted.

X The project MAY have a significant effect on the environment; therefore, an <u>Environmental Impact Report</u> is required.

Prepared by: Richard R. Rust, AICP Date: June 16, 1992

Title: Environmental Consultant to the City of Colton

5.1 EARTH

a. Most of the City of Colton is relatively flat, and measurable soil displacement due to grading will not be required. In the western end of the City, hills do exist, but roadway improvements will typically be limited to existing rights-of-way, and will not impact geologic substructures.

b. Minor grading will be required to extend or add to roadways. In addition, the emplacement of roadway surfaces will cause the overcovering of soils within the proposed roadway alignments.

c. Because of the relatively flat topography in most of the study area, and since roadways in the hills are proposed along existing rights-of-way, no changes to existing topography or ground surface relief is expected.

d. No unique geologic forms are known to exist in the area, but each roadway project will be examined for environmental compliance when proposed.

e. The Circulation Element proposes to utilize full city improvements, including guttering, and therefore no long-term increases in erosion are expected. During construction of a roadway segment, typical construction practices will limit short-term erosion to minimal amounts.

f. The Circulation Element proposes roadway improvements that will capture runoff and deliver it to the City's storm drain system. Drainage from the City typically is delivered to the Santa Ana River from this storm drain system. Increases in erosion attributable to new roadways will be minimal, and will not result in a measurable change in existing sedimentation.

g. The development of Colton's roadway system will not itself result in the exposure of people or property to geologic hazards.

5.2 AIR

a. During construction, equipment used in the construction of roadways will add minimally to the existing air quality within this basin. During operations, these new roadways will be built to handle increased traffic flows, and will contribute to the existing non-attainment status of this basin. These impacts are considered to be potentially significant on both a local and regional level.

b. Very short-term odors could result from the laying of asphalt materials in the creation of roadway surfaces.

c. On a local and regional level, the proposed project will not alter or impact air movement, moisture or temperature.

5.3 WATER

a. Implementation of the proposed project will not have a significant affect on the currents or course of direction of water movements in marine of fresh water bodies of water. No bodies of water will be impacted by the implementation of the proposed project.

b. Changes in the absorption rates, drainage patterns, and the rate and amount of surface runoff will be affected by the implementation of the proposed project. As the project is implemented, roadway improvements will cover soils with an impermeable surface resulting in an increase in runoff.

c. Implementation of the proposed action may alter flood waters if roadways are proposed to be constructed in floodways. Construction during bridge widenings in the Santa Ana River and Lytle Creek may interrupt the flow of those bodies of water; however, the interruption of flow would be temporary and not a long-term impact.

d. The addition of impervious surfaces on-site will increase the amount of runoff from the site in comparison with existing conditions, and could increase the quantity of runoff entering the Santa Ana River, although this addition is expected to be insignificant on an individual project basis.

e. Implementation of the proposed project may have a slight effect on the surface water quality as a result of surface contaminants which are deposited by vehicles travelling on the roadways and then washed off during rains and on-site grading.

f,g. The project will be served by municipal water sources, and will not directly draw from groundwater resources. Although the road widening sites will be graded, the depth to groundwater is too great for this action to potentially intercept an aquifer. The proposed project will create impervious surfaces that will reduce the sites' infiltration rates. However, the groundwater in the area is not a significantly utilized resource, and the regionally small addition of impervious surface will not create a significant impact.

h. The proposed project will not substantially reduce the amount of potable water available to the public. Dual irrigation systems are proposed for all projects within the City to utilize reclaimed water for irrigation of parks, landscape medians and planters once reclaimed water becomes available. Implementation of the policies of the General Plan, regarding the use of reclaimed water, will be beneficial to the public by making more potable water available for public use. The extension of

water and sewer lines are necessary to implement the land use plan of the General Plan.

i. According to the City of Colton General Plan Final EIR (May 5, 1987), Flood Insurance Maps (FIRM) for Colton indicate that approximately 1,500 acres are subject to inundation from a 100-Year storm. Approximately 1,000 acres adjacent to the Santa Ana River are subject to severe flooding. Implementation of the Circulation Element will have a beneficial impact on the hazards of flooding by providing an efficient storm drain system city-wide to convey flood waters away from properties therefore, protecting property during times of flooding.

j. The proposed project will not impact or affect the temperature, flow or chemical content of surface thermal springs.

5.4 PLANT LIFE

a. Areas that may be landscaped as a result of the implementation of the proposed project are expected to be relatively small and are not expected to impact vegetation in the greater Colton area. Vegetation removed as a result of the proposed project would generally include non-native landscaping within roadway right-of-ways. In areas that are vacant open space there may be an impact on native plant species through construction impacts when building new roadways, bridges, and sewer and water lines. Possible mitigation may be to require that all disturbed areas on vacant lands be reseeded with native plant species.

b. Implementation of the proposed project may result in the reduction of unique, rare or endangered plant species in areas that are vacant and contain natural habitat. Possible mitigation may be to require project specific biological assessments on individual projects as they are implemented.

c. Vegetation is the vicinity and adjacent to roadways contain non-native and native species. Areas that have been developed are typically landscaped with non-native species, whereas, areas that have not been developed contain native and ruderal plant species. Implementation of the proposed project may disturb native species by introducing non-native species in the landscaping pallet. Non-native species may also be introduced into areas adjacent to roadways that are currently vacant through seed dispersement by small animals, birds, wind, and other methods. The area that would be affected is small and plant materials that are likely to be used have already been introduced into the area through human occupation and use.

d. Implementation of the proposed project will not measurably reduce the acreage of any agricultural crop. According to the City of Colton General Plan Final EIR, May 1987, the entire Colton area, with the exception of the river wash and the three mountain regions, has soils of significant agricultural value. As a result, the General

Plan Land Use Plan designated 7.7 percent, or 907 acres of the total 11,775 acre Colton Planning area to be designated for agricultural uses. The Final EIR also recommends that more detailed studies of farmland conversion be addressed in the project specific environmental assessment before development proceeds in areas that are designated as farmland areas.

5.5 ANIMAL LIFE

a. Construction of proposed roadway improvements, water and sewer lines will eliminate those insects, small rodents and reptiles that do not have the ability to flee the project sites. However, construction impacts will not adversely affect the diversity of species or the number of any one species of animal/insect on the project sites.

b. Implementation of the proposed project may result in the reduction of unique, rare or endangered animal species in areas that are vacant and contain natural habitat. Possible mitigation may be to require project specific biological assessments on individual projects as they are implemented.

c. Implementation of the proposed project may have an impact on the movement of animals if a roadway is proposed in an area that is currently vacant. It is not anticipated that the roadway would pose a barrier to most animal species since most will cross a roadway. The introduction of new roadways and the widening of others to accommodate a higher vehicle capacity will have an impact on the mortality rate of wildlife which reside in nearby habitats.

d. If bridges are proposed in the Santa Ana River and Lytle Creek construction could have an impact on fish habitat. Possible mitigation for projects that alter channels or waterways that are considered "waters of the U.S.", under the jurisdiction of the Clean Water Act, will be to require a stream alteration agreement (1601) from the California Department of Fish and Game. Fish and Game will require mitigation for wetland plant and fish habitats that will be disturbed by the individual projects. Those determinations will be made on a project by project basis.

   Wildlife habitat may be disturbed by construction of sewer and water lines and roadways in areas that are vacant and contain natural habitat. Possible mitigation may be to require individual projects in areas that are vacant be assessed for biological impacts due to habitat loss.

5.6 NOISE

a. Implementation of the proposed project will result in an increase in short-term noise levels during construction from vehicles, construction activity and equipment.

Long-term increase in noise levels will occur along roadways from increased vehicular traffic in areas of proposed roadway widening and areas of new roads. Possible mitigation could be to require noise studies to be conducted along existing roadways that are proposed to be widened to determine the necessity of sound walls or barriers in those areas in which increased vehicular traffic would impact existing sensitive receptors.

b. It is not expected that people will be exposed to severe noise levels. Noise level impacts within the City of greater than 70 dBA, which is considered loud and obtrusive, occur in the central portion of the City and adjacent to Interstate 215, Interstate 10 and the railroad. Highway widening and impact mitigation for Interstate 10 and 215 is the responsibility of Caltrans and the Federal Highway Administration. The City should provide input to Caltrans on any environmental documentation for Interstate widening within the City boundaries.

5.7 LIGHT AND GLARE

Implementation of the proposed project may require additional light standards in areas that are currently vacant. Increased traffic will increase night glare from vehicular headlights. Implementation of the proposed project may have an adverse impact on light and glare, but this impact is not considered to be significant.

5.8 LAND USE

Implementation of the proposed project is deemed necessary to facilitate anticipated development in the City and in adjacent communities through the Year 2010. Roadway widening, new roadways, new sewer and water facilities may have a growth inducing impact in the City and adjacent areas by providing facilities that accommodate and facilitate further growth. Growth inducing impacts of the proposed project will need to be addressed further in the EIR.

It is not certain whether the implementation of the proposed project may effect the housing stock in the City by requiring the removal of existing housing for roadway widening. These possible significant impacts should be addressed in more detail in an EIR and mitigation proposed where necessary.

5.9 NATURAL RESOURCES

a,b. Implementation of the proposed project will require the use of energy resources, natural resources (i.e. cement and gravel) and human resources in the form of construction materials, fuel, petroleum products and, manual labor. Ongoing maintenance of the roadways and bridges will require the use of petroleum products.

and manual labor. Roadway widening and new roadway systems may encourage increased vehicular and subsequent gasoline consumption. However, consumption of these resources is minor, and the proposed project will not increase their rate of use.

5.10 RISK OF UPSET

a. Hazardous materials could potentially be released into the surrounding community in the event of a traffic accident involving a vehicle transporting some form of hazardous materials. During construction, if there is fuel stored on-site, there is the possibility of risk of explosion and/or spillage of petroleum products. The risk is considered minimal and implementation of the proposed project will not increase risk above that which already exists in the area. Risk is mitigated by the use of strict regulatory controls that apply to the transportation of hazardous materials.

b. Implementation of the proposed project will impact response time of emergency vehicles. Transportation improvements will have a positive effect by providing a more efficient roadway system.

5.11 POPULATION

Implementation of the proposed project will not increase population, or alter the density or distribution of population in Colton or surrounding communities. No impact is anticipated.

5.12 HOUSING

The project will not increase the need for housing in the City of Colton or the surrounding communities. The potential for loss of housing due to roadway widenings is possible, and will be evaluated further in the EIR.

5.13 TRANSPORTATION/CIRCULATION

a. Implementation of the proposed project will create additional vehicular movement within the City and surrounding areas. The Circulation Element and its proposed roadway improvements are a response to the planned land uses in the area. Roadway improvements (i.e. widening and new roadways) are needed to facilitate current and anticipated traffic increases as a result of commercial, industrial and residential development proposed in the General Plan. Without a planned upgraded circulation system to provide adequate capacity for planned vehicular movement, the current circulation system will become overcrowded and the Level of Service will deteriorate

to regionally unacceptable levels. Therefore, implementation of the Circulation Element will have a beneficial effect.

b. As part of the proposed project, restrictions on the use of on-street parking during peak traffic periods may be considered on some roadways. These restrictions could adversely impact the amount of parking available in certain areas of the City.

c. Refer to the discussion provided in 13a.

d. Implementation of the Circulation Element will alter circulation patterns within the City and possibly the surrounding communities that have shared circulation systems. Roadway widening and new roadways in areas that presently are vacant may attract additional traffic due to the circulation system's ability to accommodate additional vehicles. The widening of some roadways will relieve traffic congestion which will improve the movement of people and goods through the area. During construction, (i.e. roadways, bridges, water and sewer lines within roadways) traffic will be detoured as necessary to accommodate construction. This will result in a temporary inconvenience to some drivers. However, because alternative routes will be provided for any road closures. this is not considered a significant impact.

e. Implementation of the proposed project will not affect air or water traffic.

f. Roadway widening could affect pedestrian and bicycle safety by accommodating additional traffic. Additional traffic may also increase the possibility of traffic accidents. The Circulation Element provides for bicycle lanes and sidewalks, and at the design stage, improvement plans will comply with applicable design standards for pedestrian, cyclist and vehicular safety. Therefore, implementation of the project is not expected to have a significant impact on traffic related hazards.

5.14 PUBLIC SERVICES

a-d. Implementation of the proposed project will not affect fire, police, schools, park, and recreational facilities.

e. Implementation of the proposed project may have an impact on the City's ability to maintain additional roadways and infrastructure.

5.15 ENERGY

a,b. Construction of roadway improvements, sewer and water lines will involve the consumption of petroleum products and other forms of energy. Energy demands that would be associated with the projects would be insignificant and can be met from

existing sources. Therefore, the magnitude of energy requirements is insignificant in relation to available supplies.

5.16 UTILITIES

Implementation of the proposed project may require the relocation of existing utility lines during roadway widening and the addition of utility lines for new roadways in areas that are currently vacant. Drainage improvements may also be required to facilitate sheet flow from roadways. Implementation of the proposed project will not have a significant impact on utilities.

5.17 HUMAN HEALTH

a. Implementation of the proposed project will not create health hazards.

b. Implementation of the proposed project will not expose people to significant health hazards. During construction of roadways, sewer and water lines construction workers will be exposed to occupational hazards associated with construction. Worksite hazards are mitigated by existing regulatory programs.

5.18 AESTHETICS

Roadway improvements, sewer lines and water lines that are proposed in areas that have the potential to be aesthetically significant (i.e. scenic vistas, rock formations, views) may alter the landscape through grading activities therefore, having a potential significant aesthetic impact. These impacts will need to be determined on a project by project basis since it is not possible at this time, without definite plans, to determine whether a specific project will have an aesthetic impact.

5.19 RECREATION

Implementation of the proposed project will not have a significant impact on recreational facilities or increase the demand for additional facilities.

5.20 CULTURAL RESOURCES

a-d. Implementation of the proposed project may have an impact on prehistoric and/or historical sites or resources on a site specific project by project basis. Grading may disturb unknown cultural sites within the Colton area. Potential mitigation would be to require a cultural resources survey be conducted by a professional certified

archaeologist and/or paleontologist for all projects that are proposed in areas that are previously undisturbed. In instances where grading and earth moving uncovers potentially significant artifacts or fossils, work should be halted until a qualified specialist is retained to evaluate the significance of the finds.

5.21 MANDATORY FINDINGS OF SIGNIFICANCE

a. The proposed project will not substantially reduce the habitat of fish or wildlife species or eliminate important examples of cultural resources with the City. Individual site specific environmental assessments will still be performed on a project by project basis to determine whether biotic habitats and/or cultural resources would be impacted on a given site.

b. Implementation of the Circulation Element will facilitate both the short- and long-term goals of the City, and further implement the goals and policies contained within the existing Colton General Plan.

c. Implementation of the Circulation Element may have impacts on air quality, traffic circulation and noise that on an individual project basis those impacts may be insignificant; however, when considered on a cumulative basis those impacts may be considered significant.

d. Implementation of the Circulation Element may have a substantial adverse effect on humans by causing an increase in ambient noise levels through the accommodation of additional traffic on roadways within the City and surrounding areas.

5.22 EIR TIERING DETERMINATION

a. The Circulation Element is proposed as an update to the City of Colton General Plan of May 5, 1987. A Program EIR was prepared for the General Plan (May 5, 1987) which incorporated by reference the Colton Community Profile Report. The environmental documentation for the Circulation Element will be tiered and incorporate by reference the above mentioned City documents.

b. The Circulation Element is consistent with the City of Colton General Plan and is proposed to implement planned land uses that have been adopted by the City in its General Plan.

c. Implementation of the Circulation Element could have a significant impact on air quality, traffic circulation and noise which was considered in the General Plan EIR; however, the updated Circulation Element proposes additional vehicular traffic that was not considered in the previous EIR.

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 63D AIRLIFT WING (AMC)

25 JUN 1992

REPLY TO
ATTN OF: 63 AW/CCC
Norton AFB CA 92409-5000

SUBJECT: Initial Environmental Study for City of Colton General Plan - Circulation Element Update

TO: Chambers Group, Inc.
4324 Latham Street, Suite 140
Riverside CA 92501

1. As the base is in the process of closing, we see no impact to us directly, but this should be presented to the Inland Valley Development Association (IVDA). The IVDA is working to establish the reuse of the Norton AFB area after we close.

2. The IVDA's address is:

Inland Valley Development Association
201 North E St, 3rd Floor
San Bernardino, CA 92418

Thomas O Howell

THOMAS O. HOWELL, Lt Col, USAF
Chief, Environmental Management

RECEIVED
JUN 27 1992

South Coast
AIR QUALITY MANAGEMENT DISTRICT
21865 E. Copley Drive, Diamond Bar, CA 91765-4182 (714) 396-2000

July 14, 1992

Mr. Hani Gabriel
Principal Planner
City Of Colton
Community Development Department
650 North La Cadena Drive
Colton, CA 92324

Dear: Mr. Gabriel

Subject: **Notice of Preparation of a Draft Environmental Impact Report for the City of Colton General Plan Circulation Element.**

SCAQMD# SBC920622-02

The South Coast Air Quality Management District (District) appreciates the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report (Draft EIR) for the City of Colton General Plan Circulation Element. SCAQMD is responsible for adopting, implementing, and enforcing air quality regulations in the South Coast Air Quality Management District, which includes the project location. As a responsible agency, SCAQMD reviews and analyzes environmental documents for projects that may generate significant adverse air quality impacts. In this capacity, SCAQMD advises lead agencies in addressing and mitigating the potential adverse air quality impacts caused by projects.

SCAQMD has developed a protocol which establishes threshold levels for determining which environmental documents will be reviewed. For projects which exceed certain established thresholds, SCAQMD will review and provide comments.

After reviewing the notice of preparation, it was determined that this project is below established SCAQMD threshold levels for project review. However, a circulation element of a general plan has the potential to significantly impact air quality. Through the inclusion of air quality policies and programs, the circulation element may improve air quality locally and regionally. To assist the Lead Agency in the preparation of the air quality analysis for the EIR, the following is a summarization for evaluating air quality impacts.

Baseline Information: Describe the existing climate and air quality of the region and project site location.

Community Development Dep.

Identify and quantify all project **Sources of Emissions.**

Compare and assess anticipated project emissions with the District's **Thresholds of Significance** and the existing air quality of the region and project location.

Identify and assess **Toxic Source Emissions** at the project location.

Assess **Cumulative Air Quality Impacts** from related projects.

Assess **Consistency** with the AQMP.

Identify and quantify **Project Alternatives** that may attain the goals of the project with substantially fewer or less significant impacts including the No Project Alternative.

Identify **Mitigation Measures** necessary to reduce air quality impacts.

Discuss strategies to attain a **1.5 AVR** by 1999.

Discuss **vehicle miles traveled** (VMT) reduction strategies.

Discuss **consistency with** locally adopted **Congestion Management Programs (CMPs).**

For additional information please refer to SCAQMD's Air Quality Handbook for Preparing Environmental Impact Reports to assess and mitigate adverse air quality impacts. Attached is a list of potential mitigation measures to reduce air quality impacts if incorporated into the project.

Upon completion of the Draft Environmental Impact Report, please forward two copies to:

Office of Planning & Rules
South Coast Air Quality Management District
21865 Copley Drive
P O Box 4939
Diamond Bar CA 91765-0939

Attn: Local Government - CEQA

If you have any questions, please call me at (714) 396-3055

Sincerely,

Connie Day

Connie Day
Program Supervisor
Local Government - CEQA

Attachment
(tranop2)

routing, use of public transportation, and satellite parking areas with a shuttle service.

- o Schedule goods movements for off-peak traffic hours.
- o Synchronize traffic signals.
- o Provide adequate ingress and egress at all entrances to public facilities to minimize vehicle idling at curbsides.
- o Provide dedicated turn lanes as appropriate.

ATTACHMENT

POTENTIAL POLICIES AND IMPLEMENTATION STRATEGIES

POLICY 1

To reduce automobile emissions by reducing the number of vehicles driven to a work site on a daily basis:

STRATEGIES

- Provide local shuttle and regional transit systems and transit shelters.
- Provide bicycle lanes, storage areas, and amenities.
- Ensure efficient parking management.
- Provide dedicated parking spaces with electrical outlets for electric vehicles.
- Provide peripheral park-n-ride lots.
- Provide preferential parking to high occupancy vehicles and shuttle services.
- Charge parking lot fees to low occupancy vehicles.

POLICY 2

To reduce automobile emissions by reducing the number of persons who must drive to a work site on a daily basis:

STRATEGIES

- Promote Transportation Management Associations (TMAs).
- Establish telecommuting programs, alternative work schedules, and satellite work centers.
- Work with cities/developers/citizens in the region to implement TDM goals.

POLICY 3

To reduce vehicular emissions through traffic flow improvements:

STRATEGIES

- Configure parking to minimize traffic interference.
- Minimize obstruction of through-traffic lanes.
- Provide a flagperson to guide traffic properly and ensure safety at construction sites.
- Schedule operations affecting traffic for off-peak hours.
- Develop a traffic plan to minimize traffic flow interference from construction activities. Plan may include advance public notice of

Colton Joint Unified School District

Herbert R. Fischer, Ph.D., Superintendent
Robert W. Murphy, Assistant Superintendent, Business

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Joining Together to Go the Extra Mile

Certified Mail
P 359 266 869

July 17, 1992

City of Colton
Community Development Department
Planning Division
Att: Hani Gabriel
650 N. La Cadena Drive
Colton, CA 92324

SUBJECT: NOTICE OF PREPARATION OF DRAFT EIR / CIRCULATION ELEMENT

Dear Mr. Gabriel:

The Colton Joint Unified School District has completed a review of the above-referenced Notice of Preparation, and requests that the following issues be addressed within the Draft E.I.R.:

- A significant portion of the City of Colton is served by the Colton Joint Unified School District, whose students utilize existing streets and sidewalks on a daily basis. The District currently operates the following schools within the City of Colton:

  -Birney Elementary School, 1050 E. Olive Avenue
  -Cooley Ranch Elementary School (Extension), 770 S. Seventh Street
  -Grant Elementary School, 550 W. Olive Avenue
  -Lincoln Elementary School, 444 E. Olive Avenue
  -McKinley Elementary School, 600 W. Johnston Street
  -Reche Canyon Elementary School, 3101 Canyon Vista
  -Rogers Elementary School, 955 W. Laurel
  -San Salvador Children's Center, 471 Agua Mansa Road
  -Wilson Elementary School, 750 S. Eighth Street
  -Colton Junior High School, 670 W. Laurel
  -Colton High School, 777 W. Valley Blvd.
  -Slover Mountain Continuation High School, 325 Hermosa
  -Washington Independent Study High School, 900 E. "C" Street

  The Draft E.I.R. should include an assessment of the adequacy of existing pedestrian facilities which serve the project area, particularly in the areas surrounding school sites. Further, several concerns have recently been expressed by parents, District officials and City staff in relation to traffic circulation, signage and pedestrian safety in the the vicinity of schools. The Draft E.I.R. should address these issues as an integral component of the Circulation Element.

°Please note that the District currently operates approximately 50 buses on a daily basis throughout the City of Colton. District transportation staff have provided the following comments concerning the N.O.P.:

1. The railroad crossing at "M" Street needs an exemption sign;
2. The railroad crossing at Rancho Avenue needs the exemption sign removed;
3. "C" Street between Mt. Vernon and Ivy is a thin street which also allows parking along the side of the street, making bus access to Washington School difficult. Recommendation to limit on street parking or convert to one-way traffic movement;
4. Buses exiting Colton High School onto Rancho Avenue must frequently enter into heavy traffic. Recommendation for a signal or other traffic control at this location.
5. The intersection at Citrus and Macy needs a 4-way stop sign.
6. The intersection at 12th Street and "N" Street needs stop signs along the north and south sides of the streets. It already has a yield sign.
7. A stop sign, or preferably a signal light is needed at the Mt. Vernon Avenue offramp of the 10 fwy. A stop sign is already present for those exiting, but the cars traveling north and south along Mt. Vernon are not required to stop.
8. The intersection of La Cadena and Barton Road needs a signal light or a 4-way stop.
9. The intersection of Reche Canyon Road and Prado Lane needs either a signal light or a 3-way stop, due to the heavy traffic traveling north and south bound along Reche Canyon Road.
10. The northbound Rancho Avenue left arrow signal at the westbound offramp of the 10 fwy has a timing problem. At times, it will "stick", delaying those wishing to turn.

While these issues are specific in nature, the Circulation Element Draft E.I.R. should discuss school bus access and circulation, especially along major arterials and over railroad crossings.

Questions or inquires concerning the above comments should be directed to the District Facilities Office at (714)876-4112. For further information concerning the District's transportation program (and comments 1-10 above), please contact Mr. Rick Feinstein, Transportation Director, at (714)876-4110. Please forward a copy of the Draft E.I.R., along with any public hearing notices to the District when they are available.

Sincerely,

Greg G. Gage

Greg G. Gage
Coordinator, School Facilities

GGG:dh

cc: Bob Murphy, Assistant Superintendent, Business
Rick Feinstein, Director of Transportation

Planning
Department

DATE: July 17, 1992

TO: City of Colton
Community Development Department
Planning Department
ATTENTION: MR. HANI GABRIEL, PRINCIPAL PLANNER
650 North La Cadena Drive
Colton, CA 92324

FROM: City of Grand Terrace
Planning Department
Patrizia Materassi, Planning Director

SUBJECT: COMMENTS ON INITIAL ENVIRONMENTAL STUDY FOR CITY OF COLTON CIRCULATION ELEMENT UPDATE

1. Page 6 and Page 18 of the Circulation Element Update states that traffic on roads feeding into the Grand Terrace portion of Barton Road will be at LOS E Rating. We would like to request the document to analyze traffic mitigation measures to be implemented in the interim until I-215 and the Washington interchange is improved. We are most concerned with the traffic consisting of large heavy trucks and impacts of overall traffic worsening service levels on Barton Road and Mt. Vernon.

   We would also appreciate any information regarding planned improvements for the Washington/I-215 area in the short and long term range.

2. Page 12(i) and Page 10(f). The future Seven Oaks Dam project and the impact it may have on the Santa Ana River Basin, and flood zones of surrounding cities staff would appreciate any communication as to whether the City of Colton's FIRM flood plans have taken into account the northern boundary of Grand Terrace and southern boundary of the City of Colton near the Santa Ana River Basin (end of Terrace Avenue). We would appreciate any information or plans that reflect this area as we have a potential development in the preliminary stages.

22795 Barton Road • Grand Terrace, California 92324-5295 • (71 24-6621

3. Page 15(d) of the Circulation Element Update states that certain road closures are necessary while the circulation element is being put into effect. We would appreciate clarification as to where and how that affects the roads shared by our two cities; Mt. Vernon Avenue, Barton Road and outside arterial roads.

We appreciate the opportunity to review this document and look forward to future contacts.

Maria C. Muett

Maria C. Muett,
Associate Planner

P. Materassi

Patrizia Materassi,
Planning Director

FRANKLIN E. SHERKOW
Director of Transportation

COUNTY OF RIVERSIDE

TRANSPORTATION DEPARTMENT

PLANNING AND DEVELOPMENT REVIEW

July 21, 1992

City of Colton
Community Development Department
Planning Division
650 North La Cadena Drive
Colton, CA 92324

RE: Notice of Preparation of Draft Environmental Impact Report for Circulation Element Update

Dear Mr. Gabriel:

The County of Riverside Transportation Department has reviewed the above referenced document and have the following comments:

1. This Department is concerned with potential impacts to roads at the San Bernardino/Riverside County line under Riverside County jurisdiction, particularly Reche Canyon Road. The Riverside County Comprehensive General Plan designates Reche Canyon Road as a Mountain Arterial (110' R/W). However, Riverside County General Plan Amendment No. 1787 which was adopted under Resolution No. 89-615 in December 1989 limits any improvements to Reche Canyon Road to two lanes in accordance with Standard No. 100C, Section C. This dictates that the pavement not exceed 40 feet. This constraint may limit the density of development in the area and should be taken into consideration in evaluating development proposals across the County line.

   Additionally, Riverside Avenue transitions into North Main Street at the county line and is under County jurisdiction and could potentially be impacted by future development. The City of Colton should consult with our Department to determine the extent of traffic impacts and any required mitigation if these roadways are to be upgraded in the city.

Thank you for the opportunity to comment on the proposed Circulation Element. Please keep us advised as to further actions regarding this proposal. If you should have any questions, please do not hesitate to contact myself at (714) 275-6772 or Sian Roman, Associate Planner at (714) 275-6874.

Sincerely,

Martha Tarlton

Martha Tarlton
Senior Transportation Planner
SR:ck

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Community Development

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Community Development Dept

STATE OF CALIFORNIA—THE RESOURCES AGENCY

PETE WILSON, *Governor*

DEPARTMENT OF FISH AND GAME
?0 Golden Shore, Suite 50
Long Beach, California 90802
(310) 590-5113

July 20, 1992

Mr. Hani Gabriel, Principal Planner
City of Colton
Community Development Department
Planning Division
650 North La Cadena,
Colton, California 92324

Dear Mr. Gabriel:

Notice of Preparation for City of Colton - Circulation Element
San Bernardino County

To enable our staff to adequately review and comment on subject project, we recommend the following information be included in the Draft Environmental Impact Report:

1. A complete assessment of flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened and locally unique species and sensitive and critical habitats.

2. A discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts.

3. A discussion of potential adverse impacts from any increased runoff, sedimentation, soil erosion, and/or urban pollutants on streams and watercourses on or near the project site, with mitigation measures proposed to alleviate such impacts. Stream buffer areas and maintenance in their natural condition through non-structural flood control methods should also be considered in order to continue their high value as wildlife corridors.

More generally, there should be discussion of alternatives to not only minimize adverse impacts to wildlife, but to include direct benefit to wildlife and wildlife habitat. Those discussions should consider the Department of Fish and Game's policy that there should be no net loss of wetland acreage or habitat values. We oppose projects which do not provide adequate mitigation for such losses.

Mr. Hani Gabriel
July 20, 1992
Page Two

Diversion, obstruction of the natural flow, or changes in the bed, channel, or bank of any river, stream, or lake will require notification to the Department of Fish and Game as called for in the Fish and Game Code. Notification should be made after the project is approved by the lead agency.

Thank you for the opportunity to review and comment on this project. If you have any questions, please contact Mr. Curt Taucher at (310) 590-5137.

Sincerely,

C Taucher

Fred Worthley
Regional Manager
Region 5

cc: Office of Planning & Research